CA FOUNDATION

BUSINESS ECONOMICS

Sir Love Kaushik

EDITION: Fifth

Published By: Physicswallah Limited

Physics Wallah Publication

ISBN: 978-93-7153-161-0
MRP: 449/-
Mobile App: Physics Wallah (Available on Play Store)

Website: www.pw.live
Youtube Channels: CA Intermediate by PW (@CAintermediatebyPW)
CA Wallah by PW (@CAWallahbyPW)
Commerce Wallah by PW (@CommerceWallahPW)
CA Final by PW (@CAFinalPW)

Email: publication@pw.live
SKU Code: BKP2602019173

Rights

All rights are reserved with the Publisher. No part of this book may be used or reproduced in any manner whatsoever without written permission from the author or publisher.

In the interest of the student community:

Circulation of soft copy of Book(s) in PDF or other equivalent format(s) through any social media channels, emails, etc. or any other channels through mobiles, laptops or desktop is a criminal offense. Anybody circulating, downloading, or storing, a soft copy of the book on his device(s) is in breach of the Copyright Act. Further photocopying of this book or any of its material is also illegal. Do not download or forward in case you come across any such soft copy material.

Disclaimer

A team of PW CA Wallah faculties and experts with a deep understanding of the subject has worked hard for the creation and curation of this book.

While the content creators, editors and publisher have used their best efforts in preparing these books. The content has been checked for accuracy. As the book is intended for educational purposes, the author shall not be responsible for any errors contained in the book.

The publication has designed the content to provide accurate and authoritative information with regard to the subject matter covered.

This book and the individual contribution contained in it are protected under Copyright Act by the publisher.

(This book shall only be used for educational purposes.)

PREFACE

At **CA Wallah by PW**, our mission is simple—to help CA Foundation aspirants build strong conceptual clarity through content, that is accurate, structured, and fully aligned with ICAI's standards.

We are delighted to introduce the **Second Edition of the CA Foundation Business Economics - Concept book by Sir Love Kaushik**, a book designed to prioritize clarity, relevance, help students develop concepts systematically, and approach the subject with confidence.

This book has been developed through close collaboration between experienced **faculty**, **subject matter experts**, **academic reviewers** and **designers**. Their combined expertise ensures that every chapter is presented in a student-friendly manner, enhancing the overall quality while maintaining conceptual depth and alignment with ICAI standards.

The guiding philosophy of this book is **"Strong Concepts with Smart Practice"**. Designed as a detailed concept companion. It works best when paired with the **Revizer** in your regular study plan, especially for last-stage exam preparation.

KEY FEATURES

- **100% Chapterwise ICAI module coverage**, ensuring complete syllabus alignment.
- **Simplified and Exam-oriented conceptual coverage** for better clarity.
- **Exam-relevant key words highlighted** for better retention.
- **Shortcut learning tricks included** to enhance speed and accuracy
- **Topic-wise questions included** for structured practice
- **Previous Year Questions (PYQs)** included for exam-focused preparation

We hope this Concept Book becomes a reliable companion in your CA Foundation preparation and helps you master Business Economics with clarity and confidence.

Wishing you focused preparation and great success!

ABOUT THE AUTHOR

Sir Love Kaushik: An "Ecomanian" and Visionary Educator.

A passionate educator and economics enthusiast, has dedicated his career to simplifying and demystifying the subject of economics. With both undergraduate and master's degrees in economics, he proudly identifies himself as an **"Ecomanian"**.

Since 2010, he has extended his influence beyond academia by mentoring students preparing for CA, CMA, CS, and senior secondary examinations. Renowned for his ability to break down complex concepts into simple, engaging lessons, he has made learning not just informative but also enjoyable.

Through online platforms, his dynamic teaching style has inspired and educated hundreds of thousands of students, empowering the next generation of financial and business leaders. For Sir Love Kaushik, teaching economics is not merely about delivering knowledge—it is about igniting a passion for understanding the global forces that shape our world.

CONTENTS

1. Nature and Scope of Business Economics 1-19
2. Theory of Demand and Supply 20-87
3. Theory of Production and Cost 88-123
4. Price Determination in Different Markets 124-152
5. Business Cycles 153-163
6. Determination of National Income 164-225
7. Public Finance 226-276
8. Money Market 277-312
9. International Trade 313-362
10. Indian Economy 363-387

January, 2026 Question Paper with Answer Key 388-402

CA WALLAH

TOP RANKS EVERY ATTEMPT



KUSHAGRA ROY

1 AIR

CA INTERMEDIATE MAY 2024



ADARSH MAURYA — 13 AIR



ABHIMANYU GOYAL — 14 AIR



SAKSHAM AGARWAL — 15 AIR



ADITI SAPRA — 23 AIR



CHURAMANI REGMI — 25 AIR



PIYUSH GUPTA — 27 AIR



ROHAN GUPTA — 30 AIR



KUSHAGRA HANDA — 31 AIR



SIYA — 31 AIR



AMAN VERMA — 31 AIR



ANKIT GOYAL — 33 AIR



VANSH GUPTA — 34 AIR



MOHIT — 34 AIR



KESHAV LADDHA — 34 AIR



GARVIT — 35 AIR



SHIVAM SINGLA — 36 AIR



SHRISHTI — 37 AIR



ANGELICA — 38 AIR



FATIMA ANSARI — 39 AIR



PRINCE — 39 AIR



ANSH — 41 AIR



KRUNAL RAJKUMAR S. — 41 AIR



ANANT KUMAR GOYAL — 42 AIR



KALMARUDAPPA H N — 43 AIR



KUSH AGARWAL — 45 AIR



BHUMIKA — 46 AIR



VANSH MODI — 46 AIR



ROUNAK RATWANI — 47 AIR



ARMAAN KHAN — 48 AIR



JAY SANJEEV KAROSHI — 49 AIR



YASH MISHRA — 50 AIR

24 AIRs IN LAST 2 ATTEMPTS



Scan this QR Code to access the Chanakya Series One-shot Revision Videos

01 NATURE AND SCOPE OF BUSINESS ECONOMICS

CONTENT OF THE CHAPTER

Unit-1: Introduction
Unit-2: Basic Problems of an Economics & Role of Price Mechanism

UNIT-1: INTRODUTION

What is Business all about?	What is Economics about?
	

Basically, Economics is Making Choices in the Presence of Scarcity. Here, scarcity is a situation where demand for resources is more than their supply. So, scarcity is the main reason of making choice or making decisions.

DECISION MAKING PROCESS INVOLVES

1. Evaluation of Feasible alternatives (many options).
2. Rational Judgement on the basis of Information Available.
3. Choosing most Suitable alternatives.

However, there are some points to be noted about Economics:

1. The word "Economics" comes from the Greek words "Oiko" meaning household and "Nomia" meaning management or rule. So, Economics basically means the management of a household.
2. Before the 19th century, Economics was called 'Political Economy'.
3. Adam Smith's book, The Wealth of Nations (1776), is regarded as the first modern economics work.
4. As per Adam Smith, Economics is the study of wealth of nations. Full name of the book is 'An Inquiry into the Nature and Causes of the Wealth of Nations'.
5. The definitions of Economics by different economists.

Alfred Marshall – Welfare Definition



Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and use of the material requisites of well-being.

J.B. Say's Definition



"Economics is the study of wealth.

Lionel Robbins – Scarcity Definition



Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternatives uses.

Paul Samuelson



According to Paul Samuelson, Economics studies how limited resources are used to produce goods and services and how they are distributed for use now and in the future. He added the idea of economic growth over time, so his definition is called the Growth-Oriented Definition of Economics.

BUSINESS



What is Business all about?

A Business is an **Economic activity** like manufacturing, sale-purchase, mining, farming, banking, insurance, transportation etc. Business helps in transforming inputs (raw material) into output (goods and services).

The **purpose** of any economic activity is to create **surplus or profit.**

Questions

1. The term 'Economics' owes its origin to the Greek word_____.

(*a*) Aikonomia (*b*) Wikonornia

(*c*) Oikonomia (*d*) None of the above

2. Adam Smith published his masterpiece "An Enquiry into the Nature and Causes of Wealth of Nations" in the year_____.

(*a*) 1776 (*b*) 1786

(*c*) 1789 (*d*) 1790

3. Oikonomia means _____.
   (*a*) Industry (*b*) Management of household
   (*c*) Services (*d*) None of these
4. Scarcity definition of Economics is given by:
   (*a*) Alfred Marshall (*b*) Samuelson
   (*c*) Robinson (*d*) Adam Smith
5. The definition "Science which deals with wealth of Nation" was given by:
   (*a*) Alfred Marshall (*b*) A.C. Pigou
   (*c*) Adam Smith (*d*) J.B. Say

Answers

1. (*c*) **2.** (*a*) **3.** (*b*) **4.** (*c*) **5.** (*c*)

MEANING OF BUSINESS ECONOMICS

1. Business Economics may be defined as the integration of economic theory with business practices/activities.
2. Business economics is also known as "managerial economics".
3. Joel Dean defined Business Economics as the use of economic analysis to make business decisions involving the best use of an organisation's scarce resources.

Questions

1. Business Economics is also known as?
   (*a*) Applied Economics (*b*) Managerial Economics
   (*c*) Micro Economics (*d*) All of the above
2. Business Economics is basically concerned with: **[Sept. 2024]**
   (*a*) Applied Economics (*b*) Managerial Economics
   (*c*) Micro Economics (*d*) All of the above
3. Concept of Business Economics was given by: **[CA CPT May 2018]**
   (*a*) Joel Dean (*b*) Alfred Marshall
   (*c*) Adam Smith (*d*) L. Robbins
4. _____ defined business Economics in terms of the use of economic analysis in the formulation of business policies.
   (*a*) Joel Dean (*b*) Karl Marks
   (*c*) Adam Smith (*d*) Schumpeter

Answers

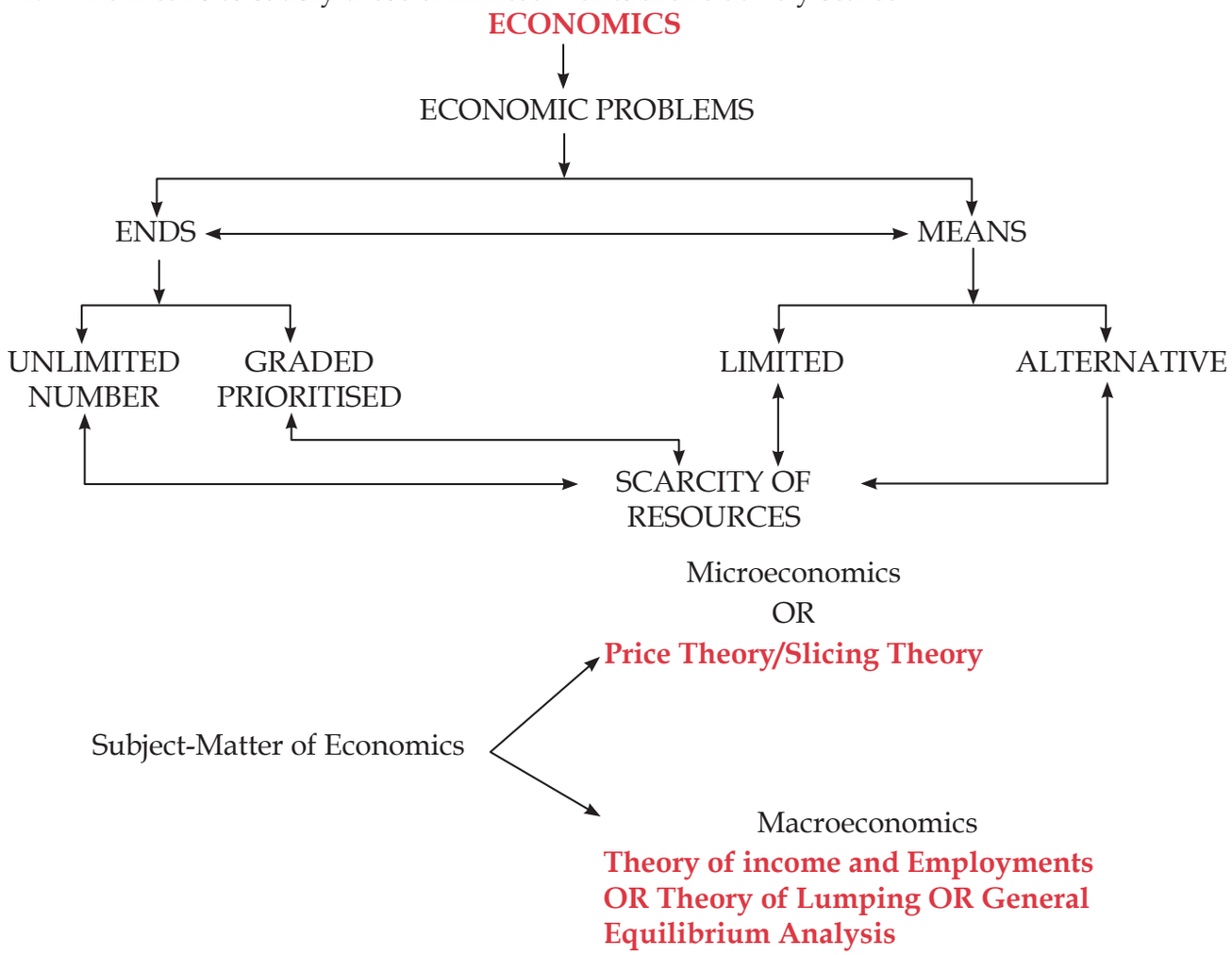
1. (*b*) **2.** (*b*) **3.** (*a*) **4.** (*a*)

Points to be Noted

1. The study of Economics will enable us to develop an analytical approach that helps us in understanding and analysing a wide range of economic issues.
2. The study of Economics cannot ensure that all problems will be appropriately tackled, but it would enable us to examine a problem from the right perspective.

The Fundamental Facts

1. 'Human beings have unlimited wants'; and
2. 'The means to satisfy these unlimited wants are relatively scarce



Microeconomics is basically the study of the behaviour of different individuals and organisations within an economic system. In other words, Microeconomics examines how the individual units (consumers or firms) make decisions as to how to efficiently allocate their scarce resources. Therefore, it does not explain what is happening in the wider economic environment.

We Mainly Study the Following in Microeconomics

(i) Product pricing;
(ii) Consumer behaviour;
(iii) Factor pricing;
(iv) The economic conditions of a section of people;
(v) Behaviour

Macroeconomics is the study of the overall economic phenomena or the economy as a whole, rather than its individual parts. Accordingly, in Macroeconomics, we study the behaviour of the large economic aggregates, such as, the overall levels of output, total consumption, total saving and total investment and also how these aggregates shift over time.

A Few Areas That Come Under Macroeconomics are

(i) National Income and National Output;
(ii) The general price level and interest rates;
(iii) Balance of trade and balance of payments;
(iv) External value of currency; or Foreign Exchange Rate
(v) The overall level of savings and investment; and
(vi) The level of employment and rate of economic growth.

Questions

1. Macroeconomics include: **[CA CPT May 2019]**
(*a*) Aikonomia (*b*) Wikonornia
(*c*) Oikonomia (*d*) None of the above

2. Which of the following is a part of Microeconomics?
(*a*) Factor pricing
(*b*) National income
(*c*) Both (*a*) and (*b*) are correct
(*d*) Both (*a*) and (*b*) are incorrect

3. Micro economics does not study_____.
(*a*) Consumer Behaviour (*b*) Factor Pricing
(*c*) General Price Level (*d*) Firms' Equilibrium

4. Microeconomics is the study of:
(*a*) Individual parts of the economy (*b*) The economy as a whole
(*c*) Choice Making (*d*) Development of the economy

5. An economy exists because of two basic facts i.e., _____. **[Nov. 2020]**
(*a*) Human wants are limited and resources are unlimited
(*b*) Human wants are unlimited and resources are unlimited
(*c*) Human wants are unlimited and resources are scarce.
(*d*) Human wants are limited and resources are abundant

Answers

1. (*c*) **2.** (*a*) **3.** (*c*) **4.** (*a*) **5.** (*c*)

THE NATURE OF BUSINESS ECONOMICS

1. **Business Economics is a Science:** Science is a systematised body of knowledge which establishes cause and effect relationships. It integrates decision sciences (Mathematics, Statistics, Econometrics) with Economic Theory to create appropriate strategies. It follows scientific methods and empirically tests the validity of the results.
2. **Based on Microeconomics:** Business Economics is concerned more with the decision-making problems of individual establishments; it relies heavily/largely on the techniques of Microeconomics. Microeconomics is the heart of business economics.

3. **Incorporates Elements of Macro Analysis:** A business unit does not operate in a vacuum. It is affected by the external environment of the economy in which it operates such as, the general price level, income and employment levels in the economy and government policies with respect to taxation, interest rates, exchange rates, industries, prices, distribution, wages and regulation of monopolies. All these are components of Macroeconomics.
4. **Business Economics is an Art** as it involves practical application of rules and principles for the attainment of set objectives.
5. **Use of Theory of Markets and Private Enterprises:** Business Economics largely uses the theory of markets and private enterprise. It uses the theory of the firm and resource allocation in the backdrop/surface of a private enterprise economy.
6. **Pragmatic in Approach:** Microeconomics is abstract and purely theoretical, and it analyses economic phenomena under unrealistic assumptions. In contrast, Business Economics is pragmatic in its approach as it tackles practical problems which firms face in the real world.
7. **Interdisciplinary in Nature:** Business Economics is interdisciplinary in nature as it incorporates tools from other disciplines such as Mathematics, Operations Research, Management Theory, Accounting, Marketing, Finance, Statistics and Econometrics.
8. **Normative in Nature:** Business economics is generally normative in nature. Economic theory has developed along two lines: positive and normative. A positive or pure science analyses cause-and-effect relationships between variables objectively and scientifically, but it does not involve any value judgment. In other words, it states 'what is' of the state of affairs and not what ought to be! In other words, it is descriptive in nature in the sense that it describes the economic behaviour of individuals or society without prescriptions about the desirability or otherwise of such behaviour.

   As against this, a normative science involves value judgements. It is prescriptive in nature and suggests 'what should be' a particular course of action under given circumstances. Welfare considerations are embedded/included in normative science.

Questions

1. Business Economics is pragmatic in approach because of which of the following causes? **[June 2022]**

(*a*) Based on assumptions
(*b*) Tackles practical problems
(*c*) Considers profit only
(*d*) Considers internal value

2. Business Economics is _____. **[MTP Nov. 2022]**

(*a*) Science
(*b*) An art
(*c*) Both Science and Art
(*d*) None of these

3. What is the nature of business economics, which is an applied branch of Economics? **[June 2024]**

(*a*) It is positive in nature
(*b*) It is normative in nature

(*c*) It is neutral in nature

(*d*) It is both positive as well as normative in nature

4. Which of the following is not a correct statement? **[June 2023]**

(*a*) Business Economics is a normative science

(*b*) Business Economics is an art

(*c*) Business Economics is based largely on Microeconomics

(*d*) Business Economics does not incorporate elements of Macroeconomics.

5. Normative science suggests which of the following? **[June 2022]**

(*a*) What should be

(*b*) What to Produce

(*c*) How to produce

(*d*) When to produce

6. An example of 'positive' economic analysis would be:

(*a*) An analysis of the relationship between the price of food and the quantity purchased.

(*b*) Determining how much income each person should be guaranteed

(*c*) Determining the 'fair' price for food

(*d*) Deciding how to distribute the output of the economy

7. Who introduced the subject of Business Economics?

(*a*) Adam Gilchrist (*b*) Adam Smith

(*c*) Joel Flower (*d*) Joel Dean

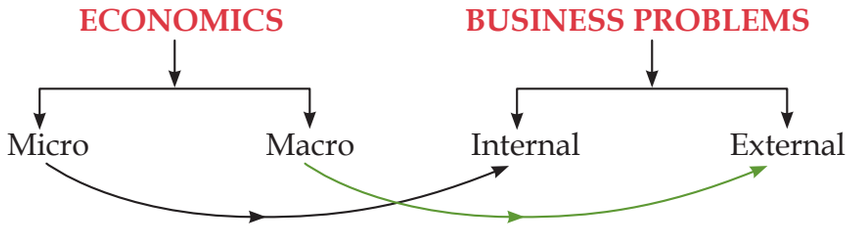
Answers

1. (*b*) **2.** (*c*) **3.** (*b*) **4.** (*d*) **5.** (*a*) **6.** (*a*) **7.** (*d*)

SCOPE OF BUSINESS ECONOMICS

The scope of Business Economics is quite wide. It covers most of the practical problems a manager or a firm faces. There are two categories of business issues to which economic theories can be directly applied, namely:

1. Microeconomics applied to operational or internal issues
2. Macroeconomics applied to environmental or external issues



1. **Microeconomics Applied to Operational or Internal Issues:** Operational Issues include all those issues that arise within the organisation and fall within the purview/zone and control of the management.

These issues are internal in nature.

For example: Issues related to choice of business and its size, product decisions, technology and factor combinations, pricing and sales promotion, financing and management of investments and inventory.

The following Microeconomic theories deal with most of these issues.

- Demand Analysis and Forecasting
- Production and Cost Analysis
- Inventory Management
- Market Structure and Pricing Policies
- Resource Allocation
- Theory of Capital and Investment Decisions
- Profit Analysis
- Risk and Uncertainty Analysis

2. **Macroeconomics Applied to Environmental or External Issues:** Environmental factors have significant influence on the functioning and performance of business.

The major macroeconomic factors relate to:

- The type of economic system.
- Stage of the business cycle.
- The general trends in national income, employment, prices, saving and investment.
- Government's economic policies like industrial policy, competition policy, monetary and fiscal policy. price policy, foreign trade policy and globalisation policies.
- Working of financial sector and capital market.
- Socio-economic organisations like trade unions, producer and consumer unions and cooperatives.
- Social and political environment.

Business decisions cannot be taken without considering these present and future environmental factors. As the management of the firm has no control over these factors, it should fine-tune its policies to minimise their adverse effects.

Questions

1. The operational or internal issues to which economic theories can be directly applied are related to_____.
   (*a*) Micro Environment
   (*b*) Macro Environment
   (*c*) Business Economics
   (*d*) Environmental Economics
2. Business Economics relies heavily on the techniques of _____.
   (*a*) Micro Economics
   (*b*) Macro Economics
   (*c*) Normative Science only
   (*d*) Economics Discipline Only

3. Business Economics is _____ in its approach as it tackles practical problems which the firm faces in the real world.
   (*a*) Scientific
   (*b*) Pragmatic
   (*c*) Theoretical
   (*d*) Mathematical
4. Business Economics is _____.
   (*a*) Abstract and applies the tools of Microeconomics
   (*b*) Involves practical application of economic theory in business decision making
   (*c*) Incorporates tools from multiple disciplines
   (*d*) (*b*) and (*c*) above.

Answers

1. (*a*) **2.** (*a*) **3.** (*b*) **4.** (*d*)

DIFFERENCE BETWEEN ECONOMICS AND BUSINESS ECONOMICS

Basis of Difference	Economics	Business Economics
Meaning	It involves the framing of economic principles to solve economic problems.	It involves the application of economic principles to solve economic problems.
Character	It is microeconomic as well as macroeconomic in character.	It is largely microeconomic in character.
Main Task	The fulfilment of needs of individuals as well as entities.	Proper decision making in a particular business entity.
Nature	It is positive as well as normative in nature.	It is only normative in nature.
Scope	It has a wider scope.	It has a comparatively narrow scope.
Branches	It has business economics as its applied branch.	It is an applied branch of economics.
Concerned with	All the theories from production to consumption including distribution.	It is concerned with only profit theory ignoring other theories.
Analysis Involved	It includes the analysis of macro level issues like growth, inflation and employment, etc. and Micro.	It includes the analysis of micro level issues like demand, supply and profit etc.
Concentration Focus	It concentrates only on the economic aspects of any business problem.	It concentrates on both economic as well as non- economic aspects of any business problem.
Validity of Assumptions	It is based on certain assumptions.	Some assumptions become invalid when applied.

Questions

1. The Business Economics incorporates tools from other disciplines such as Mathematics, operations Research, Management theory, Accounting, etc. Therefore, Business Economics is

(*a*) Intra-disciplinary (*b*) Inter-disciplinary

(*c*) Multi-disciplinary (*d*) Flexi-disciplinary

2. Which of the following statements is/are correct regarding business economics?

(*a*) Business economics attempts to indicate how business policies are firmly rooted in economic principles

(*b*) Business economics uses microeconomic analysis of the business unit and macroeconomic analysis of the business environment

(*c*) Business economics takes a pragmatic approach towards facilitating an integration between economic theory and business practices

(*d*) All the above.

3. Unlimited ends and limited means together present the problem of _____.

(*a*) Scarcity of resources (*b*) Choice

(*c*) Distribution (*d*) None of the above

4. Which of the following statements is correct?

(*a*) Microeconomics is important for the study of a particular household and a particular firm

(*b*) Macroeconomics is important for the study of the economic conditions of a country

(*c*) None of the above

(*d*) Both (*a*) and (*b*)

5. Mr. Shaktimaan hired a business consultant to guide him in the growth of his business. The consultant visited his factory and suggested some changes with respect to staff appointment, loan availability and so on. Which approach is the consultant using?

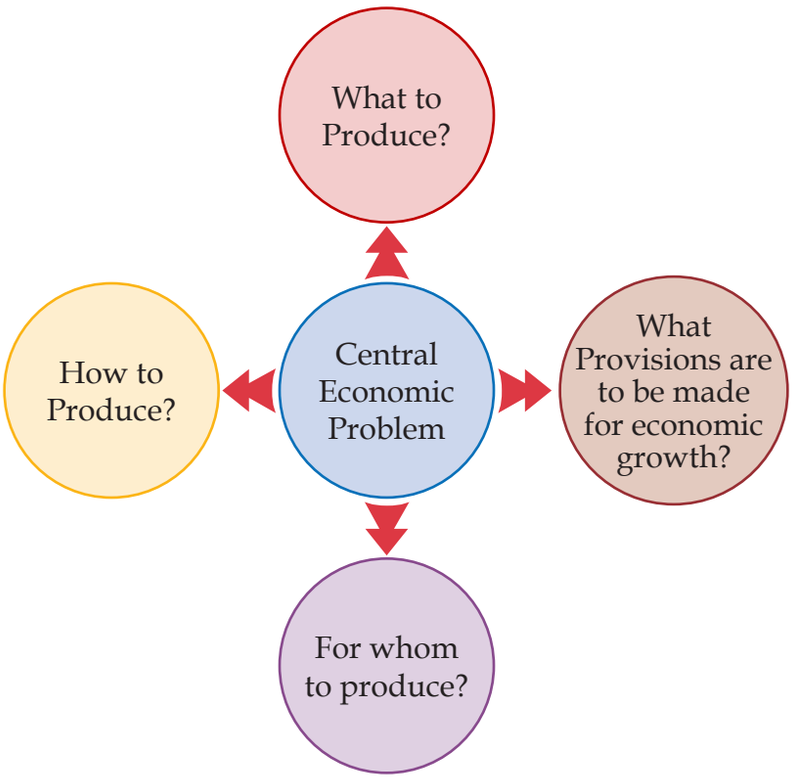
(*a*) Microeconomics (*b*) Macroeconomics

(*c*) None of the above (*d*) Both (*a*) and (*b*)

Answers

1. (*b*) **2.** (*d*) **3.** (*a*) **4.** (*d*) **5.** (*a*)

THE CENTRAL ECONOMIC PROBLEM IS DIVIDED INTO FOUR BASIC ECONOMIC PROBLEMS



What to Produce?

- This problem is about deciding which goods and services should be produced and deciding the quantities of goods and services.
- There are millions of goods to be produced in an economy.

For example:

1. capital goods like machinery, equipment, dams, etc.
2. wartime goods like guns, bombs, etc.

In a nutshell, a society must decide the quantities of wheat, schools, hospitals, machines, clothes, etc.

How to Produce?

It refers to the problem of choice related to production technology.

There are two types of production technology:

1. Labour intensive technology
2. Capital intensive technology

- Labour intensive technology refers to the production technique where more labour and less capital is used.
- Capital intensive technology refers to the production technique where more capital and less labour is used.



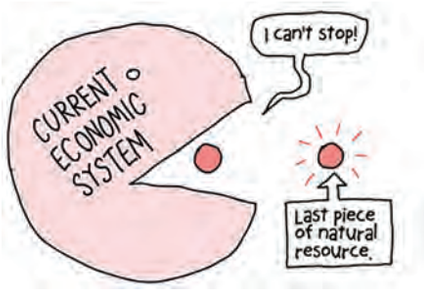
For whom to Produce?

A society cannot satisfy each and every want of all the people. It has to decide the share of different people in the national cake of goods and services.

What Provision Should be Made for Economic Growth?

A society would not like to use all its scarce resources for current consumption only. This is because, if it uses all the resources for current consumption and no provision is made for future production, the society's production capacity would not increase. This implies that incomes or standards of living of the people would remain stagnant, and in future, the levels of living may actually decline. Therefore, a society has to decide.

How much saving and investment (i.e. how much sacrifice of current consumption) should be made for future progress?



Questions

1. Which of the following is not a part of the central economic problem?

(*a*) What to Produce? (*b*) How to Produce?

(*c*) For whom to Produce? (*d*) Price fixation of Production.

2. Most of the economic problems are of _____ nature and are affected by _____. **(MTP Jun 22)**

(*a*) Complex, Several forces (*b*) Simple, Several forces

(*c*) Simple, single factor (*d*) Complex, Single factor

Answers

1. (*d*) **2.** (*a*)

ECONOMIC SYSTEMS AND ITS TYPES

Three Types of Economy

1. Capitalist Economy → Free Market Economy → Laissez Faire → Competitive Economy. **For example:** USA, JAPAN, South Korea, etc.

2. Socialist Economy → Command → Planned Economy → Controlled Economy. **For example:** China, Cuba, North Korea, etc.

3. Mixed Economy: India

Capitalist Economy

- It is an economic system in which all means of production are owned and controlled by private individuals for profit.

- Private property is the mainstay (Backbone) of capitalism, and the profit motive is its driving force.
- The government has a limited role in the management of economic affairs under this system. Some examples of a capitalist economy may include the U.S., U.K., Hong Kong, South Korea, Germany, Japan, Mexico, Singapore, etc.

Characteristics of Capitalism

- **Right to Private Property:** Individuals can privately own and freely use productive assets like land, factories, and machinery.
- **Freedom of Enterprise:** Individuals are free to start any business or engage in any type of economic activity they choose.
- **Freedom of Economic Choice:** Individuals are free to make their own choices regarding consumption, work, and production.
- **Profit Motive:** The desire to earn maximum profits is the main driving force for all economic activities and decisions.
- **Consumer Sovereignty:** Consumers are "King". Their purchases ultimately determine what goods and services are produced and in what quantities.
- **Competition:** A high degree of competition among buyers and sellers is present, leading to efficiency and better resource use.
- **Absence of Government Interference:** The economy is not centrally planned. Economic decisions are guided by self-interest and the price mechanism (supply and demand) with minimal control from government authorities.

In essence, a capitalist economy is driven by private ownership, individual freedom, the profit motive, and competition, with the government playing a minimal role.

Merits of Capitalist Economy

- Capitalism is self-regulating and works automatically through price mechanism. There is no need of incurring costs for collecting and processing of information and for formulating, implementing and monitoring policies.
- The existence of private property and the driving force of profit motive result in greater efficiency and incentive to work.
- The process of economic growth is likely to be faster under capitalism. This is because the investors try to invest in only those projects which are economically feasible.
- Resources are used in activities in which they are most productive. This results in optimum allocation of the available productive resources of the economy.
- There is usually high degree of operative efficiency under the capitalist system.
- Cost of production is minimised as every producer tries to maximise his profit by employing methods of production Which are cost-effective.
- Capitalist system offers incentives for efficient economic decisions and their implementation.

- Consumers are benefitted as competition forces producers to bring in a large variety of good quality products at reasonable prices. This, along with freedom of choice, ensures maximum satisfaction to consumers. This also results in higher standard of living.
- Capitalism offers incentives for innovation and technological progress. The country as a whole benefits through growth of business talents, development of research, etc.
- Capitalism preserves fundamental rights such as right to freedom and right to private property. Therefore, the participants enjoy maximum amount of autonomy and freedom.
- Capitalism rewards men of initiative and enterprise and punishes the imprudent and inefficient.
- Capitalism usually functions in a democratic framework.
- The capitalist set up encourages enterprise and risk taking and emergence of an entrepreneurial class willing to take risks.

Demerits of Capitalism

- There is vast economic inequality and social injustice under capitalism. Inequalities reduce the aggregate economic welfare of the society as a whole and split the society into two classes namely the 'haves' and the 'have-nots', sowing the seeds of social unrest and class conflict.
- Under capitalism, there is precedence of property rights over human rights.
- Economic inequalities lead to wide differences in economic opportunities and perpetuate unfairness in the society.
- The capitalist system ignores human welfare because, under a capitalist set up, the aim is profit and not the welfare of the people.
- Due to income inequality, the pattern of demand does not represent the real needs of the society.
- Exploitation of labour is common under capitalism. Very often this leads to strikes and lock outs. Moreover, there is no security of employment. This makes workers more vulnerable.
- Consumer sovereignty is a myth as consumers often become victims of exploitation. Excessive competition and profit motive work against consumer welfare.
- There is misallocation of resources as resources will move into the production of luxury goods. Less wage goods will be produced on account of their lower profitability.
- Less of merit goods like education and health care will be produced. On the other hand, a number of goods and services which are positively harmful to the society Will be produced as they are more profitable.
- Due to unplanned production, economic instability in terms of over production, economic depression, unemployment etc., is very common under capitalism. These result in a 1ot of human misery.
- There is enormous waste of productive resources as firms spend huge amounts of money on advertisement and sales promotion activities.
- Capitalism leads to the formation of monopolies as large firms may be able to drive out small ones by fair or foul means.
- Excessive materialism as well as conspicuous and unethical consumption leads to environmental degradation.

Questions

1. In a competitive economy, the uncrowned king is:

(*a*) Government (*b*) Producer

(*c*) Consumer (*d*) Sell

2. Profit motive is a feature of:

(*a*) Socialism (*b*) Capitalism

(*c*) Mixed economy (*d*) None of the above

3. One of the important features of a capitalist economy is:

(*a*) Economic planning (*b*) Price mechanism.

(*c*) Economic equalities (*d*) Social Welfare

4. The interference of the government is very limited in:

(*a*) Socialist economy (*b*) Capitalist economy

(*c*) Mixed economy (*d*) All the above

Answers

1. (*c*) **2.** (*b*) **3.** (*b*) **4.** (*b*)

SOCIALIST ECONOMY

The concept of a socialist economy was propounded by Karl Marx and Frederic Engels in their work 'The Communist Manifesto' published in 1848.

The erstwhile U.S.S.R. was an example of a socialist economy from 1917 to 1990. In today's world, there is no country which is purely socialist. Other examples include Vietnam, China and Cuba. North Korea, the world's most totalitarian state, is another example of a socialist economy.

Characteristics of Socialism

- **Collective Ownership:** Most means of production (like factories and large farms) are owned by the collective or state, not by private individuals.
- **Economic Planning:** A Central Planning Authority makes the major economic decisions (what, how, and how much to produce) to achieve socio-economic goals.
- **Restricted Consumer Choice:** The central authority decides what goods are available. Consumers are free to choose from the available options, but the range of choice is limited by the state's plan.
- **Relatively Equal Income Distribution:** Efforts are made to ensure a relative equality of income, reducing disparities in wealth and opportunities.
- **Minimal Role for Price Mechanism:** Prices are often "administered prices" set by the state. The profit motive does not drive decisions, and the price mechanism is only used for secondary purposes like managing stockpiles.
- **Absence of Competition:** Since the state is the sole or primary entrepreneur, there is very little to no competition in the market.

In essence, a socialist economy is characterised by state control over production, planning, and distribution, aiming for greater equality and stability over individual profit and competition.

Merits of Socialism

- Equitable distribution of wealth and income and provision of equal opportunities for all help to maintain economics and social justice.
- Rapid and balanced economic development is possible in a socialist economy as the central planning authority coordinates all resources in an efficient manner according to set priorities.
- Socialist economy is a planned economy. In a socialistic economy, there will be better utilisation of resources and it ensures maximum production. Wastes of all kinds are avoided through strict economic planning. Since competition is absent, There is no wastage of resources on advertisement and sales promotion.
- In a planned economy, unemployment is minimised, business fluctuations are eliminated and stability is brought about and maintained.
- The absence of profit motive helps the community to develop a co-operative mentality and avoids class war. This, along with equality, ensures better welfare of the society.
- Socialism ensures right to work and minimum standard of living to all people.
- Under socialism, the labourers and consumers are protected from exploitation by the employers and monopolies respectively.
- There is provision of comprehensive social security under socialism and this makes citizens feel secure.

Demerits of Socialism

- Socialism involves the predominance of bureaucracy and the resulting inefficiency and delays. Moreover, there may also be corruption, red tapism, favouritism, etc.
- It restricts the freedom of individuals as there is state ownership of the material means of production and state direction and control of nearly all economic activity.
- Socialism takes away the basic rights such as the right of private property.
- It will not provide necessary incentives to hard work in the form of profit.
- Administered prices are not determined by the forces of the market on the basis of negotiations between the buyers and the sellers. There is no proper basis for cost calculation. In the absence of such practice, the most economic and scientific allocation of resources and the efficient functioning of the economic system are impossible.
- State monopolies created by socialism will sometimes become uncontrollable. This will become more difficult to regulate than the private monopolies under capitalism.
- Under socialism, the consumers have limited freedom of choice. Therefore, what the state produces has to be accepted by the consumers.
- No importance is given to personal efficiency and productivity. Labourers are not rewarded according to their efficiency. This acts as a disincentive to work.
- The extreme form of socialism is not at all practicable.

Questions

1. In a socialist economy, the basic force of economic activity is profit. This statement is:

(*a*) Correct (*b*) Incorrect

(*c*) Partially correct (*d*) None of these

2. Which one of the following is not an example of capitalist economy?

(*a*) Japan (*b*) Mexico

(*c*) Germany (*d*) Cuba

Answers

1. (*b*) **2.** (*b*)

THE MIXED ECONOMY





In a mixed economy, the aim is to develop a system which tries to include the best features of both the controlled economy and the market economy while excluding the demerits of both. It appreciates the advantages of private enterprise and private property with their emphasis on self-interest and profit motive.

Features of Mixed Economy

1. Co-existence of private and public sector.

In a mixed economy, there are three sectors of industry:

(a) **Private Sector:** Production and distribution in this sector are managed and controlled by private individuals and groups.

(b) **Public Sector:** Industries in this sector are not primarily profit-oriented, but are set up by the State for the welfare of the community.

(c) **Combined Sector:** A sector in which both the government and the private enterprises have equal access, and join hands to produce commodities and services, leading to the establishment of joint sectors.

Merits

- Economic freedom and the existence of private property which ensures an incentive to work.
- Price mechanism and competition forces the Pvt sector to promote efficient decision-making and better resource utilisation.
- Consumers benefited through consumers' sovereignty and freedom of choice.
- Appropriate Incentives for innovation and technological progress.
- Encourages enterprise and risk-taking.
- Advantages of economic planning and rapid economic development based on plan priorities.
- Comparatively, Greater economic and social equality and freedom from exploitation.
- Disadvantages of cut-throat competition are averted through the government's legislation, like environmental laws.

Demerits

- Sometimes there exist excessive controls by the state → high taxes, corruption, delays, etc., reduced incentives and constraints on the growth of private sector.
- Moreover, it is very difficult to maintain a proper balance between the public sector and private sector.
- In the absence of a strong government. initiative, the private sector grows disproportionately. The system would then resemble capitalism, including its disadvantages.

How Do Different Economies Solve their Central Economic Problems?

Central Problems of the Economy	Capitalist	Socialist	Mixed
What to Produce?	Those goods and services are produced which yield maximum profit	As directed by the central government/ authority	Those goods that yield maximum profit, but even if the central authority directs or produces certain essential goods and services
How to produce	Minimisation of the cost of production	Nobody shall remain unemployed	Private enterprise focuses on cost minimisation, whereas the government ensures and keeps a check on unemployment
For whom to produce	Those who have the buying capacity	For every individual in society	For every individual

Questions

1. _____ is also called as command economy.

(*a*) Socialist (*b*) Capitalist

(*c*) Mixed economy (*d*) None of the above

2. A mixed economy to solve its central problems relies on:

(*a*) Economic planning (*b*) Price mechanism

(*c*) Price fixing (*d*) Both (*a*) and (*b*)

3. "Buyers ultimately determine which goods and services will be produced and in what quantities." The given statement is the meaning of: **[Jan 2025]**

(*a*) Planned economy

(*b*) Consumer Sovereignty

(*c*) Freedom of economic choice

(*d*) Freedom of enterprise

4. Which of these are the features of capitalism? **[CA CPT Nov. 2018]**

(i) Profit motive

(ii) Human welfare

(iii) Work through price mechanism

(*a*) (i) and (ii) (*b*) (ii) and (iii)

(*c*) (i) and (iii) (*d*) All of these

5. Laissez-Faire economy is also known as: **[Jan. 2021]**

(*a*) Capitalist economy (*b*) Socialist economy

(*c*) Mixed economy (*d*) Communist economy

6. Capitalist economy solve their economic problems through which of the following? **[June 2023]**

(*a*) Central Planning Authority (*b*) Price Mechanism

(*c*) Administered Prices (*d*) Voting done by Customers

7. 'The Communist Manifesto' published in 1848 by Karl Marx and Federic Engles propounded the concept of _____. **[Dec. 2023]**

(*a*) Capitalist economy (*b*) Socialist economy

(*c*) Laissez-faire economy (*d*) Free market economy

8. Larger production of _____ goods would lead to higher production in future.

(*a*) Consumer goods (*b*) Capital goods

(*c*) Agricultural goods (*d*) Public goods

9. A mixed economy to solve its central problems relies on:

(*a*) Economic planning (*b*) Price mechanism

(*c*) Price fixing (*d*) Both (*a*) and (*b*)

Answers

1. (*a*) **2.** (*d*) **3.** (*b*) **4.** (*c*) **5.** (*b*) **6.** (*b*) **7.** (*b*) **8.** (*b*) **9.** (*d*)

02

THEORY OF DEMAND AND SUPPLY

CONTENT OF THE CHAPTER

Unit-1: Law of Demand and Elasticity of Demand
Unit-2: Theory of Consumer Behaviour
Unit-3: Supply

UNIT-1: LAW OF DEMAND AND ELASTICITY OF DEMAND

MEANING OF DEMAND AND ITS ELEMENTS

Definition of Demand



- Quantity of a good that buyers are willing and able to purchase at various prices during a given period.
- More than just desire, it involves the ability to pay and the willingness to use that means for a purchase

Elements of Effective Demand



- Desire, means to purchase, and willingness to use those means.
- Desire alone isn't enough; it must be backed by purchasing power.

Quantity Demanded

- Quantity of a good that buyers are willing and able to purchase at a particular during a given period.
- Always expressed at a given price.
- It is a flow concept.

Question

1. Demand for a commodity refers to:

(*a*) desire backed by ability to pay for the commodity.

(*b*) need for the commodity and willingness to pay for it.

(*c*) the quantity demanded of that commodity at a certain price.

(*d*) the quantity of the commodity demanded at a certain price during any particular period of time.

Answer

1. (*d*)

WHAT DETERMINES DEMAND?

1. Price of the commodity
2. Price of related commodities
3. Disposable Income of the consumer
4. Tastes and preferences of buyers
5. Consumers' expectations
6. Size of population
7. Age distribution of population
8. The level of National Income and its distribution
9. Consumer-credit facility and interest rates
10. Government policies and regulations



FACTORS DETERMINING DEMAND

1. **Price of the Commodity:**
   - Inverse relationship between price and demand.
   - Higher price reduces quantity demanded; lower price increases it.
   - **Example:** If the price of Samosa increase, people might buy fewer of them.
2. **Price of Related Goods:**
   - Complementary goods (e.g., tea and sugar) and Substitutes (e.g., Pepsi and Coca-cola) affects demands.
   - In case of complementary goods prices and demands affect each other inversely.
   - In case of Substitutes, prices and demand have a direct relations.



Complementary goods (saath-saath use hote hai)

3. **Disposable Income:** Here, we need to understand different types of goods to study the impact of change in income on their demand.

   Types of Goods are:

   (i) Substitute goods/Competing goods
   (ii) Complementary goods
   (iii) Normal goods
   (iv) Inferior goods
   (v) Giffen goods

Substitute Goods

- These goods are those goods which can be easily used in place of each other. In case of such goods, there is direct relationship between the price of one good and demand for another.


Coffee


Tea



Complimentary Goods

- These goods are those goods which are used together. In case of such goods, there is inverse relationship between the price of one good and demand for another.



Related Goods

- Substitutes goods
- Complementary goods

- **Normal Goods:** These are the goods that are demanded in increasing quantities as consumers' income increases.
- **Inferior Goods:** These are the goods for which the quantity demanded decreases when money income increases (after reaching a certain income level). People switch to better alternatives as they become richer.
- **Giffen Goods:** This concept was given by Robert Giffen.

Giffen Goods's Features

1. These are the Low quality (Inferior) goods.
2. These goods take Substantial or Large Part of Income is to be spent.
3. No Close Substitutes available for such goods.


Robert Giffen ji

Please Note This

Not all inferior goods are Giffen, but all Giffen goods are Inferior.

- Increase in disposable income generally increases demand for goods.
- With rise in income, demand for Normal goods rises, and demand for Inferior goods falls.
- Essential/Necessities → Water, Food, Medicine etc.
  - Demand increases with income, but the increase is less than proportionate to the income rise (i.e., people don't drastically increase food consumption when they get rich).

Durable Goods

- As people become richer, there is relative decline in importance of non-durable goods and in importance of durable goods.

- **Luxury/Prestige Goods:** Demand increases beyond a certain level of income and keeps rising as income increases

4. Tastes and Preferences: Generally, modern or fashionable goods have higher demand.

However , Following External effects also affect demand for goods.

1. 'Demonstration effect'
2. 'Bandwagon effect'
3. 'Snob Effect'
4. 'Veblen effect'

Demonstration effect refers to the desire of the people to emulate/copy the consumption behaviour of others.

This concept was coined by James Duesenberry.






James Duesenberry

Bandwagon effect refers to the extent/level to which the demand for a commodity is increased due to the fact that others are also consuming the same commodity.

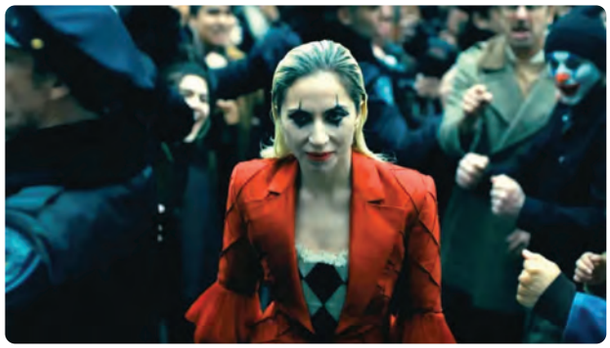
It represents the desire of people to purchase a commodity in order to be fashionable or stylish or to conform to the people they wish to be associated with.



Snob effect refers to the extent to which the demand for a consumers' good is decreased owing to the fact that others are also consuming the same commodity.

This represents the desire of people to be exclusive; to be different; to dissociate themselves from the "common herd".

For example, when a product becomes common among all, some people decrease or altogether stop its consumption.



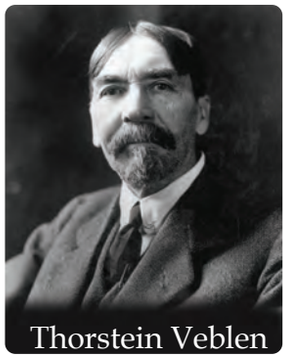


Highly priced goods are consumed by status seeking rich people to satisfy their need for conspicuous consumption.

This is called **'Veblen effect'** (named after the American economist Thorstein Veblen).

For example, expensive cars and jewels.




Thorstein Veblen

The distinction between the snob effect and the Veblen effect is that the former is a function of the consumption of others and the latter is a function of price.

5. **Consumers' Expectations:**
   - Expectations about future prices, income, and supply influence current demand.
   - Positive expectations lead to higher demand; negative expectations reduce it.
   - **Example:** Expecting a sale in the future may decrease current demand.
6. **Size of Population:** A larger population generally means there are more buyers, which leads to a higher overall demand for goods and services at every price.
7. **Age Distribution of Population:** The demand for specific goods changes depending on the age groups present. For example, a larger proportion of older people will increase demand for services like geriatric care, while more children will increase demand for toys and children's books.
8. **Level and Distribution of National Income:** A higher national income generally results in a higher market demand. However, if that income is distributed very unequally (a few rich people and many poor people), the demand for consumer goods might be comparatively less than if the income were distributed more equally. Generally, the propensity to consume is higher among the poor as compared to the rich.
9. **Consumer Credit Facility and Interest Rates:** When credit is easily available and interest rates are low, people are encouraged to borrow and purchase expensive items, like durable goods, increasing demand.

10. **Government Policies and Regulations:** Government actions like taxes decrease demand by raising prices, while subsidies increase demand by lowering prices. Regulations can also be used to restrict the demand for certain undesirable goods.

DEMAND FUNCTION

The demand function states the relationship between:

- demand for a product (dependent variable) and
- its determinants (independent or explanatory variables).

A demand function may be expressed as follows:

$$D_x = f(P_x, Y, P_y, T, \text{etc.})$$

Questions

1. Which of the following pairs of goods is an example of substitutes?

   (*a*) Tea and sugar (*b*) Tea and Coffee

   (*c*) Pen and ink (*d*) Shirt and trousers

2. When price of a substitute of X commodity falls, the demand for X _____. **(MTP Mar 18, Dec 22)**

   (*a*) Rises (*b*) Falls

   (*c*) Remains unchanged (*d*) Any of the above

3. Goods which are inferior, with no close substitutes easily available and which occupy a substantial place in consumer's budget are called _____ goods. **(July 2021)**

   (*a*) Speculative (*b*) Prestige

   (*c*) Conspicuous (*d*) Giffen

4. Match the following: **(MTP Nov. 22)**

List–I		List–II	
A.	Tea and Coffee	I.	Veblen goods
B.	Car and Petrol	II.	Substitutes
C.	Gold and Diamond	III.	Giffen goods
D.	Ragi and Bajaria	IV.	Complementary

   (*a*) A-I, B-II, C-III, D-IV (*b*) A-II, B-IV, C-I, D-III

   (*c*) A-I, B-III, C-IV, D-II (*d*) A-I, B-III, C-II, D-IV

5. Name the term which refers to the demand for consumer goods which is decreased owing be the fact that others are also consuming the same commodity.

   (*a*) Halo effect

   (*b*) Snob effect

   (*c*) Veblen effect

   (*d*) Demonstration effect

6. Mr. X and Mr. Y are rich rivals and, in a party, Mr. X wears an expensive dress and on seeing it Mr. Y who also has the same dress decided to reject the use of the same dress further. Rather Mr. Y will try to use an even more expensive one. Which effect affects Mr. Y? **(Sept. 2024)**

(*a*) Bandwagon Effect (*b*) Demonstration Effect

(*c*) Snob Effect (*d*) Veblen Effect

7. Highly priced goods are consumed by status seeking rich people to satisfy their need for conspicuous consumption. This is called as _____. **(July 2021)**

(*a*) Veblen Effect (*b*) Snob Effect

(*c*) Helen Effect (*d*) None of these

8. If the price of Pepsi decreases relative to the price of Coke and 7-UP, the demand for:

(*a*) Coke will decrease (*b*) 7-UP will decrease

(*c*) Coke and 7-UP will increase (*d*) Coke and 7-UP will decrease

9. If the price of orange Juice increases, the demand for apple Juice will _____.

(*a*) Increase because they are substitutes

(*b*) Decrease because they are substitutes

(*c*) Remain the same because real income is increased

(*d*) Decrease as real income decreases

10. The price of tomatoes increases and people buy tomato puree. You infer that tomato puree and tomatoes are

(*a*) Normal Goods (*b*) Complements

(*c*) Substitutes (*d*) Inferior goods

Answers

1. (*b*) **2.** (*b*) **3.** (*d*) **4.** (*c*) **5.** (*b*) **6.** (*c*) **7.** (*a*) **8.** (*d*) **9.** (*a*) **10.** (*c*)

LAW OF DEMAND

Prof. Alfred Marshall defined the Law as: "The greater the amount to be sold, the smaller must be the price at which it is offered in order that it may find purchasers or in other words the amount demanded increases with a fall in price and diminishes with a rise in price."

Rationale of The Law of Demand (Why Demand Curve Slopes Downward?)

The various reasons for operation of Law of Demand are:

1. Price effect
2. Utility maximising behaviour of consumers
3. Arrival of new consumers
4. Different uses
5. Price effect is the sum total of income effect and substitution effect.

Income Effect

- It refers to effect on demand when real income of the consumer changes due to change in price of the given commodity.
- When the price falls, it increases the purchasing power (real income) of the consumer. Due to this, he can purchase more of the given commodity with the same income.

Substitution Effect

- When price of the given commodity falls (say ball pen), it becomes relatively cheaper as compared to its substitute (say ink pen). As a result, demand for the given commodity (i.e. ball pen) rises.

  The substitution effect will be stronger when:

  (a) The goods are closer substitutes

  (b) There is lower cost of switching to the substitute good

  (c) There is lower inconvenience while switching to the substitute good.

Utility Maximising behaviour of Consumers (Law of Diminishing Marginal Utility)

- According to Marshall, the consumer has diminishing utility for each additional unit of a commodity and therefore, he will be willing to pay only less for each additional unit.
- A rational consumer will not pay more for lesser satisfaction. He is induced to buy additional units only when the prices are lower.

Arrival of New Consumers

When the price of a commodity falls, more consumers start buying it because some of those who could not afford to buy it earlier may now be able to buy it.

Different Uses

Many commodities have multiple uses. When the price of such commodities is high (or rises), they will be put to limited uses only. If the prices of such commodities fall, they will be put to a greater number of uses, and therefore their demand will increase. Example: Milk, electricity, etc.

Exceptions To The Law of Demand

The following are the important exceptions to the law of demand:

Conspicuous Goods (Prestige/Snob/Veblen Goods)

- Some people measure utility by its price.
- If the commodity is expensive, they think that it has more utility. So , they buy less of this commodity at lesser price. Eg. Diamond
- This was found out by Veblen in his doctrine of "Conspicuous Consumption" and hence this effect is called Veblen effect or prestige goods effect.
- Veblen effect takes place as some consumers consider that if the commodity is expensive then it has more utility.

Conspicuous Necessities

The demand for certain goods is affected by the demonstration effect of the consumption pattern of a social group to which an individual belongs.

Giffen Goods

Such goods exhibit direct price-demand relationship.

- All Giffen goods are inferior goods; but all inferior goods are not Giffen goods.
  - All Giffen goods are inferior goods because all Giffen goods have negative income effect.
  - But all inferior goods are not Giffen goods.

Future Expectations About Prices

When prices are rising, households expecting that prices in future will be still higher, they will be buying larger quantity currently and vice-versa.

For example, when there is wide-spread drought, people expect that prices of food grains would rise in future. They demand greater quantities of food grains even at the higher price.

Incomplete Information and Irrational Behaviour

Consumers have incomplete information and therefore make inconsistent decisions regarding purchases.

A household may demand larger quantity of a commodity even at a higher price because it may be ignorant of the ruling price of the commodity.

Consumers tend to be irrational and make impulsive purchases without any rational calculations about the price and usefulness of the product and in such contexts the law of demand fails.

Demand for Necessities

The law of demand does not apply much in the case of Necessities of life.

Irrespective of price changes, people have to consume the minimum quantities of necessary commodities.

Speculative Goods

In the speculative market, particularly in the market for stocks and shares, more will be demanded when the prices are rising and less will be demanded when prices decline.

Demand Schedule

A demand schedule is a table showing quantities of a good that buyers would demand at different prices, per unit of time, with all other variables held constant. Demand schedule obeys the law of demand.

Market Demand Schedule

Market demand is total quantity that all buyers of a commodity are willing to buy per unit of time at a given price, other things remaining constant.

Market Demand Schedule of good X (per day)

Quantity Demanded by			
Price of Good X in (Rs.)	A	B	Total Market Demand
0	3	2	5
10	2	1	3
20	1	0	1
30	0	0	0

When we add the quantities demanded at each price by consumers A and B, we get the total market demand. Thus, when good X is free or price is zero per unit, the market demand for commodity 'X' is 5 units (i.e., 3 + 2). When price rises to Rs. 100, the market demand is 3 units. At a price of Rs. 20 only one unit is demanded in the market. At price Rs. 30, both A and B do not buy good X and therefore, market demand is zero. The market demand schedule also indicates inverse relationship between price and quantity demanded of 'X'.

DEMAND CURVE

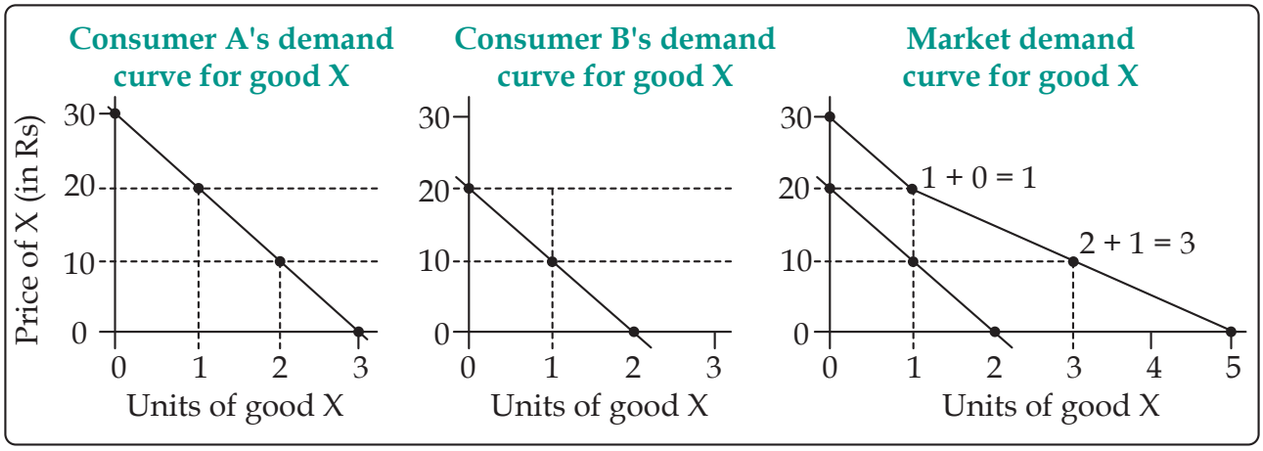
A demand curve is a **graphical presentation of the demand schedule.** It is obtained by plotting **Price on y-axis and Quantity Demanded on X-axis.**

Slope of demand curve is → change in price/change in quantity = $\Delta P/\Delta Q$

Negative sign in slope shows the inverse relationship between price of the commodity and its quantity demanded.

Demand curve can be **linear** (straight line) or **curvilinear** (slope may vary along curve).

Market Demand Curve



DEMAND EQUATION

The straight-line demand curve where we hold everything else constant other than price, can be described by a linear demand function.

$$Q = a - bP$$

Where 'a' is the vertical intercept and 'b' is the slope.

Questions

1. The term "Ceteris Paribus" refers to _____.

(*a*) Other things being equal (*b*) Other things also change

(*c*) Other things may change (*d*) None of the above

2. In the case of a Giffen good, the demand curve will usually be:

(*a*) Horizontal (*b*) Downward-sloping to the right

(*c*) Vertical (*d*) Upward-sloping to the right

3. In the case of a Veblen good, the demand curve will usually be:

(*a*) Horizontal (*b*) Downward-sloping to the right

(*c*) Vertical (*d*) Upward-sloping to the right

4. An example of goods that exhibit direct price-demand relationship is

(*a*) Giffen goods (*b*) Complementary goods

(*c*) Substitute goods (*d*) None of the above

5. Commodities for which the quantity demanded rises only up to a certain level of income and decreases with an increase in income beyond this level are called

(*a*) Normal goods (*b*) Inferior goods

(*c*) Essential goods (*d*) Luxury goods

6. At higher prices people demand more of certain goods not for their worth but for their prestige value – This is called

(*a*) Veblen effect (*b*) Giffen's paradox

(*c*) Speculative effect (*d*) None of the above

7. The slope of a demand curve is: **[JAN 2025]**

(*a*) $\Delta Q/\Delta P$ (*b*) $\Delta P/\Delta Q$ (*c*) $-\Delta Q/\Delta P$ (*d*) $-\Delta P/\Delta Q$

8. With a fall in the price of a commodity:

(*a*) Consumer's real income increases

(*b*) Consumer's real income decreases

(*c*) There is no change in the real income of the consumer

(*d*) None of the above

9. When the total demand for a commodity rises, whose price has fallen, it is due to:

(*a*) Income effect (*b*) Substitution effect

(*c*) Complementary effect (*d*) Price effect

10. The substitution effect will be stronger when: **[MTP April 2025]**

(*a*) The goods are close substitutes

(*b*) There is a lower cost of switching to the substitute good

(*c*) There is lower inconvenience while switching to the substitute good

(*d*) All the above

11. The substitution effect will be what when the price of the product falls? **(June 2022)**

(*a*) Zero (*b*) Negative (*c*) Positive (*d*) Lower cost

12. In the case of inferior goods, the expansion in demand due to a price fall will take place only if the **[MTP April 2025]**

(*a*) Income effect outweighs the substitution effect

(*b*) Substitution effect outweighs the income effect

(*c*) Substitution effect equals the income effect

(*d*) None of the above

13. Market demand is the sum total of: **[MTP April 2025]**

(*a*) All quantities that producers can produce

(*b*) All quantities actually sold in the market

(*c*) All quantities demanded by individual household and consumers

(*d*) None of these

14. Goods which are inferior, with no close substitutes easily available and which occupy a substantial place in consumer's budget are called _____ goods.

(*a*) Speculative (*b*) Prestige

(*c*) Conspicuous (*d*) Giffen

15. Law of demand is violated when: **[MTP April 2025]**

(*a*) Income effect is negative

(*b*) Substitution effect is negative

(*c*) Negative income effect is greater than substitution effect

(*d*) None of these

16. In the case of inferior goods, the demand falls due to a price fall will take place only if the

(*a*) Income effect outweighs the substitution effect

(*b*) Substitution effect outweighs the income effect

(*c*) Substitution effect equals the income effect

(*d*) None of the above

17. In the case of inferior goods, the expansion in demand due to a price fall will take place only if the **[MTP April 2025]**

(*a*) Income effect outweighs the substitution effect

(*b*) Substitution effect outweighs the income effect

(*c*) Substitution effect equals the income effect

(*d*) None of the above

18. In case of _____ goods, the expansion in demand due to a price fall will take place only if the substitution effect outweighs the income effect **[Dec. 2021]**

(*a*) Inferior goods (*b*) Necessaries

(*c*) Giffen goods (*d*) Luxuries goods

19. The substitution effect will be what when the price of the product falls? **[June 2022]**

(*a*) Zero (*b*) Negative

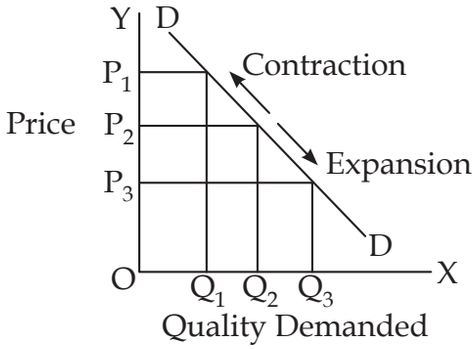
(*c*) Positive (*d*) Lower cost

Answers

1. (*a*)	**2.** (*d*)	**3.** (*d*)	**4.** (*a*)	**5.** (*b*)	**6.** (*a*)	**7.** (*d*)	**8.** (*a*)	**9.** (*d*)	**10.** (*d*)
11. (*c*)	**12.** (*b*)	**13.** (*c*)	**14.** (*d*)	**15.** (*c*)	**16.** (*b*)	**17.** (*b*)	**18.** (*a*)	**19.** (*c*)	

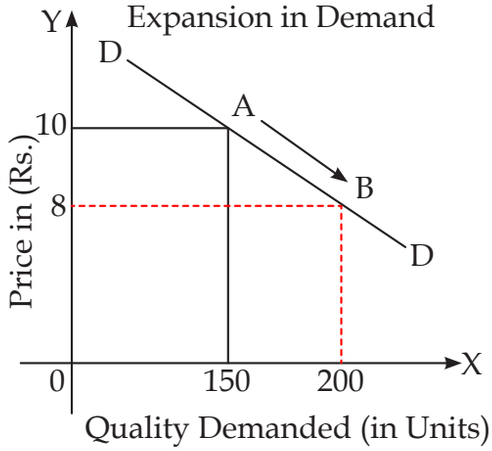
MOVEMENT ALONG DEMAND CURVE OR CHANGE IN QUANTITY DEMANDED

Expansion of Demand & Contraction of Demand: Both are the types of Movement along Demand Curve:



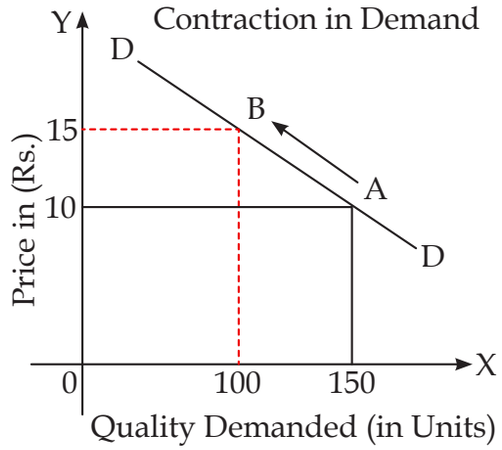
1. **Expansion of Demand:** It is rise in demand due to fall in price. Also, known as increase in quantity demanded. It shows downward movement along the demand curve.

Price (Rs.)	Quality (Units)
10	150
8	200



2. **Contraction of Demand:** It is fall in demand due to rise in price. Also, known as decrease in quantity demanded. It shows upward movement along the demand curve.

Price (Rs.)	Quality (Units)
10	150
15	100



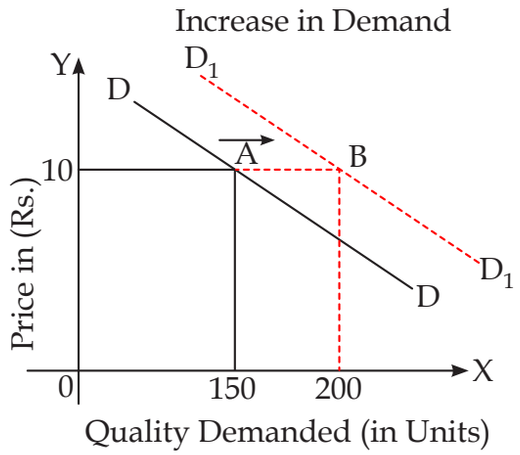
Expansion of Demand/Increase in Quantity Demanded	Contraction of Demand/Decrease in Quantity Demanded
Price falls → Demand rises	Price rises → Demand falls
Moves downward along the demand curve	Moves upward along the demand curve
Other factors remain constant	Other factors remain constant

CHANGE IN DEMAND OR SHIFT IN DEMAND CURVE

Increase and Decrease in Demand: Both are the types of shift in Demand Curve

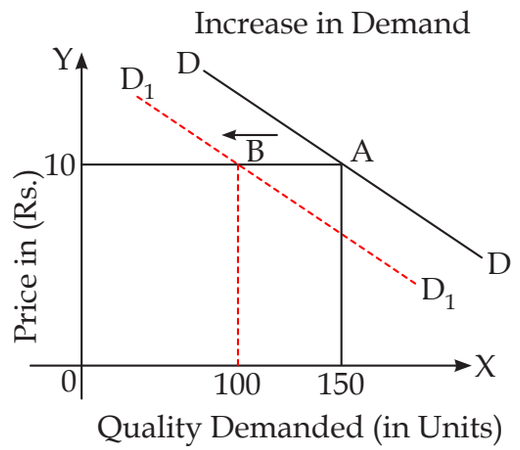
- **Increase in Demand:** It is increase in demand due to change in the factors other than price of own good. It leads to rightward shift in demand curve.

Price (Rs.)	Quality (Units)
10	150
10	200



- **Decrease in Demand:** It is decrease due to change in the factors other than price of own good. It leads to leftward shift in demand curve.

Price (Rs.)	Quality (Units)
10	150
10	100



Increase in Demand	Decrease in Demand
Demand rises due to factors other than price (income, preferences, etc)	Demand falls due to factors other than price (income, preferences, etc)
The demand curve shifts rightward	The demand curve shifts leftward
Other factors remains constant	Other factors remains constant

Questions

1. Movement along the same demand curve represents: **(June 2023)**

(*a*) Change in demand (*b*) Change in Quantity demanded

(*c*) Increase in demand (*d*) Decrease in demand

2. A movement along the demand curve for soft drinks is best described as:

(*a*) An increase in demand (*b*) A decrease in demand

(*c*) A change in quantity demanded (*d*) A change in demand

3. Contraction of demand is the result of:

(*a*) Decrease in the number of consumers (*b*) Increase in the price of the good concerned

(*c*) Increase in the prices of other goods (*d*) Decrease in the income of purchasers

4. Contraction of demand is the result of **[MTP April 2025]**

(*a*) Decrease in the number of Consumers (*b*) Increase in the price of the good concerned

(*c*) Price of related products (*d*) None of these

5. Leftward shift of demand curve of coffee represents: **[June 2022]**

(*a*) Decrease in demand (*b*) Increase in demand

(*c*) Contraction (*d*) Expansion

6. Chicken and fish are substitutes. If the price of chicken increases, the demand for fish will

(*a*) An increase or decrease but the demand curve for chicken will not change

(*b*) Increase and the demand curve for fish will shift rightwards

(*c*) No change, but there will be a movement along the demand curve for fish

(*d*) Decrease, and the demand curve for fish will shift leftwards

7. Match items of Column-I with items of Column-II and select the correct answer:

Column-I		Column-II	
A.	decrease in demand	I.	downward movement along the demand curve
B.	extension in demand	II.	rightward shift in demand curve
C.	increase in demand	III.	leftward shift in demand curve
D.	contraction in demand	IV.	Upward movement along the demand curve

(*a*) A-IV, B-II, C-I, D-III (*b*) A-III, B-I, C-II, D-IV

(*c*) A-I, B-III, C-II, D-IV (*d*) None of These

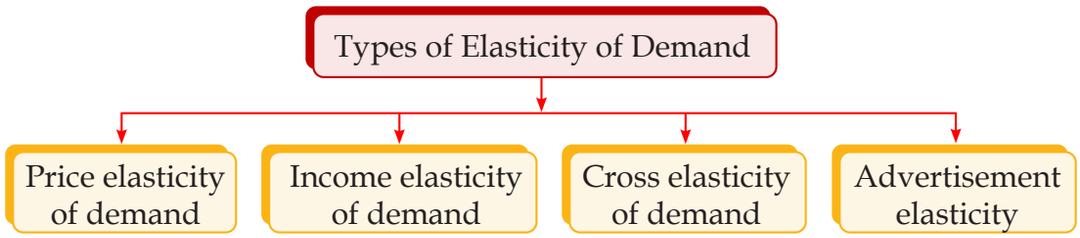
Answers

1. (*b*) **2.** (*c*) **3.** (*b*) **4.** (*b*) **5.** (*a*) **6.** (*b*) **7.** (*b*)

ELASTICITY OF DEMAND

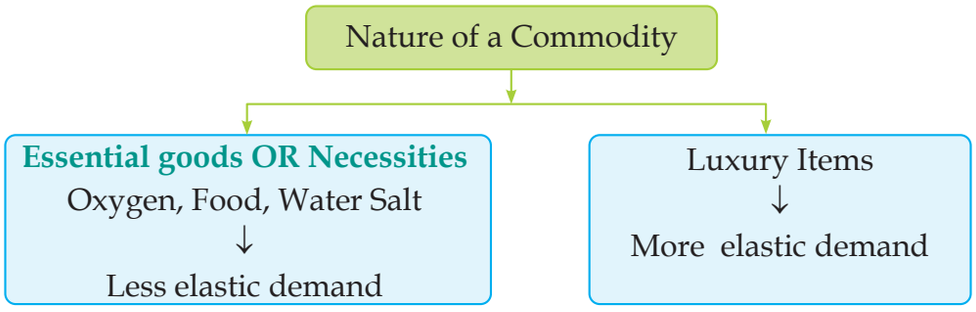
- Elasticity of demand refers to the responsiveness of quantity demanded of a commodity to a change in any determinant of demand.

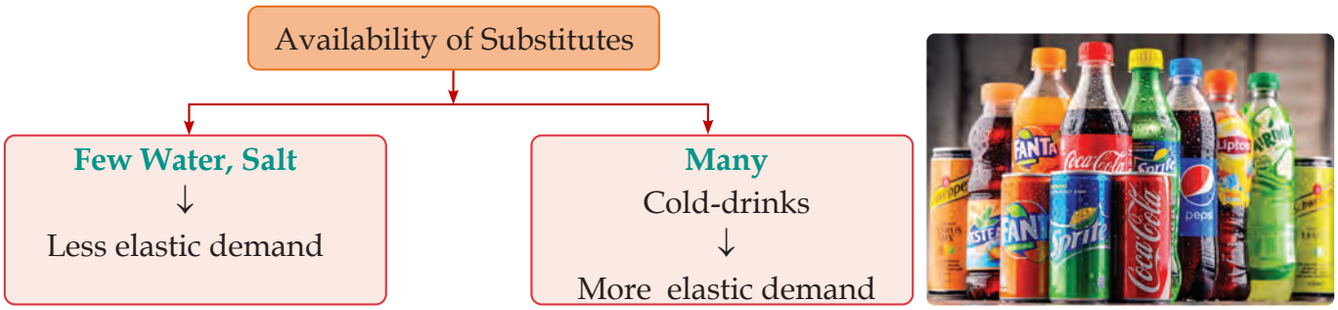
- We need to study following types of elasticity of demand:

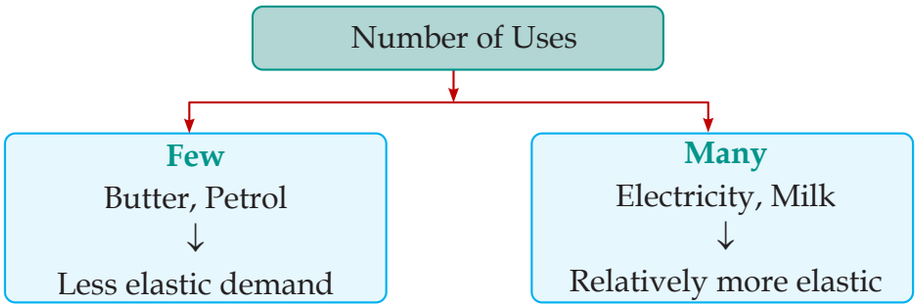


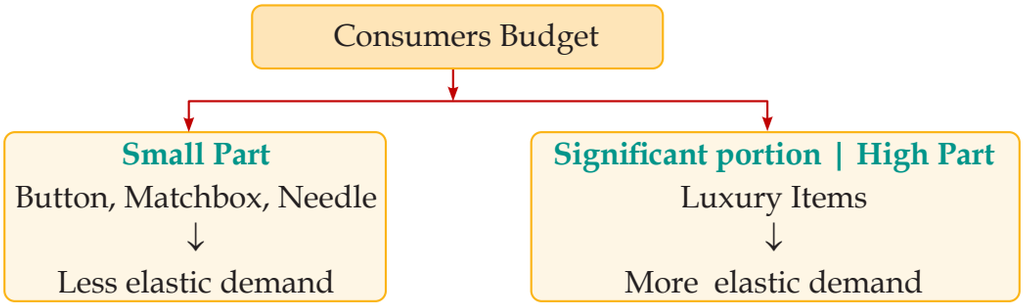
PRICE ELASTICITY OF DEMAND (E_p)

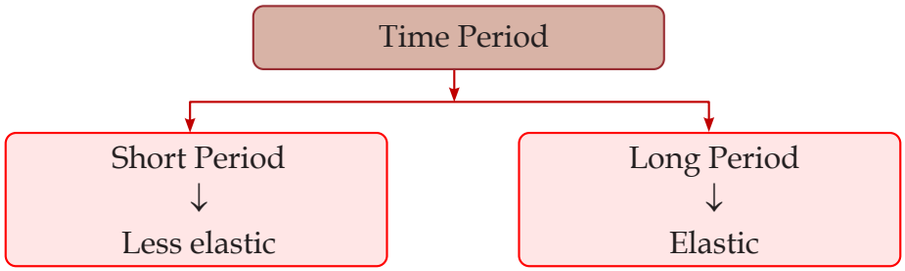
- Price elasticity of demand measures the responsiveness of the quantity demanded of a commodity to a change in price, assuming all the other factors as constant.
  - $E_p > 1$ = More elastic or Elastic or More than unit elastic Demand
  - $E_p < 1$ = Inelastic or Less elastic or Less than unit elastic Demand





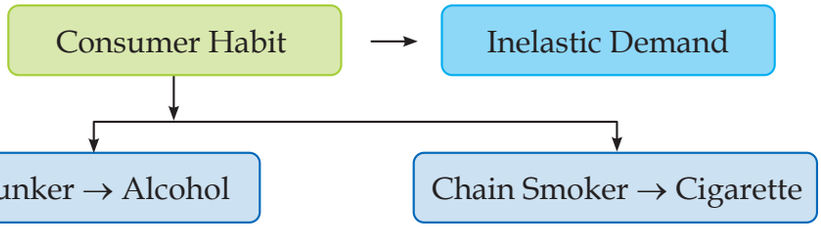




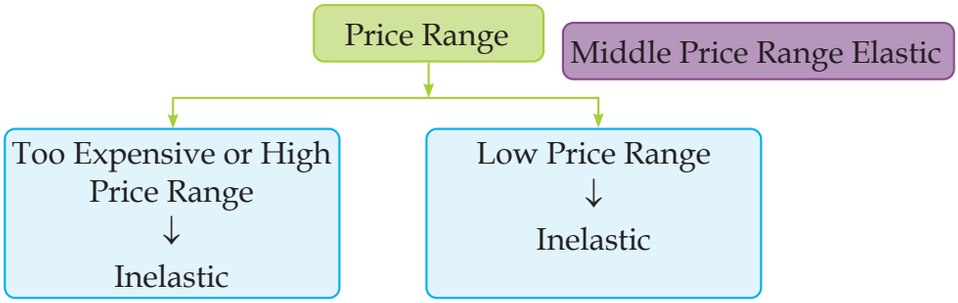


Tied Demand → Case of Complementary goods → Inelastic Demand

For example- Printer and Ink [Cartridge] , car and fuel



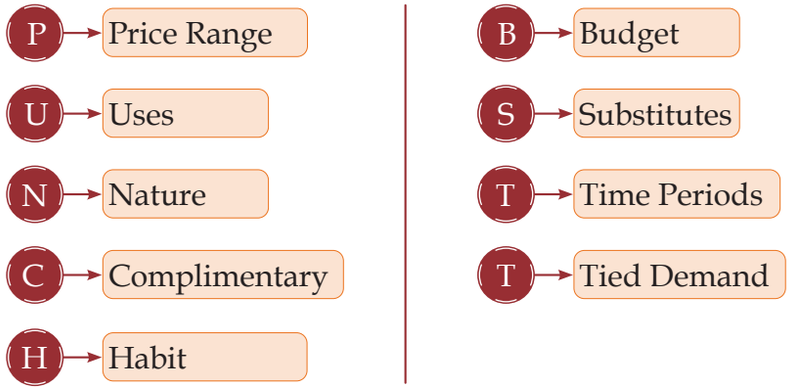




DETERMINANTS OF PRICE ELASTICITY OF DEMAND

(a) Availability of substitutes
(b) Position of a commodity in the consumer's budget
(c) Nature of the need that a commodity satisfies
(d) Number of uses to which a commodity can be put
(e) Time period
(f) Consumer habits
(g) Tied demand
(h) Price range
(i) Minor complementary items

SHORT TRICK OF LEARNING IS - PUNCH BSTT



Questions

1. What is the elasticity of demand in the case of necessities and luxuries?

(*a*) Necessities have elastic, and luxuries have inelastic
(*b*) Necessities have inelastic. and luxuries have elastic
(*c*) Necessities have zero, and luxuries have one
(*d*) Necessities have one, and luxuries have zero

2. A good which cannot be consumed more than once is known as

(*a*) Durable good
(*b*) Non-durable good
(*c*) Producer good
(*d*) None of the above

3. Demand for a good will tend to be more inelastic if it exhibits which of the following characteristics?

(*a*) The good has many substitutes.
(*b*) The good is a luxury (as opposed to a necessity).
(*c*) The good is a small part of the consumer's income.
(*d*) There is a great deal of time for the consumer to adjust to the change in prices.

4. Demand for a good will tend to be more elastic if it exhibits which of the following characteristics?

   (*a*) It represents a small part of the consumer's income.

   (*b*) The good has many substitutes available.

   (*c*) It is a necessity (as opposed to a luxury).

   (*d*) There is little time for the consumer to adjust to the price change.

Answers

1. (*b*) **2.** (*b*) **3.** (*c*) **4.** (*b*)

METHOD OF MEASURING E_P

1. Percentage/Proportionate Method
2. Mid-Point/Arc Elasticity
3. Point elasticity Method
4. Total Outlay or Total Expenditure Method

Percentage Method

According to this method, E_P is calculated by taking the ratio of % change in Q.D. and % change in price of the commodity.

It can be expressed as:

$$E_p = \frac{\%\,\Delta \text{ in Q.D.}}{\%\,\Delta \text{ in Price}}$$

As per the above formula:

1. If %Δ in Q.D = % Δ in price then, $E_P = 1$
2. If %Δ in Q.D > % Δ in price then, $E_P > 1$
3. If %Δ in Q.D < % Δ in price then, $E_P < 1$
4. If %Δ in Q.D = 0, then, $E_P = 0 \rightarrow$ Perfectly Inelastic Demand
5. If %Δ in Price of Good = 0, then $E_P \infty \rightarrow$ Perfectly Elastic Demand

A 5% fall in the price of a good leads to a 15% rise in its demand. Determine the elasticity and comment on its value.

Solution

$$\text{Price Elasticity} = E_p = \frac{\%\text{ change in quantity demanded}}{\%\text{ change in Price}} = \frac{15\%}{5\%} = 3$$

Comment: The good in question has elastic demand.

Illustration 1

The price of a commodity decreases from ₹6 to 4 and quantity demanded of the good increases from 10 units to 15 units. Find the coefficient of price elasticity. **(ICAI Module)**

Solution

$$\text{Price elasticity} = (-)\frac{\Delta q}{\Delta p} \times \frac{P}{q} = \frac{5}{2} \times \frac{6}{10} = (-)1.5$$

Illustration 2

The quantity demanded by a consumer at price ₹9 per unit is 800 units. Its price falls by 25% and quantity demanded rises by 160 units. Calculate its price elasticity of demand. **(ICAI Module)**

Change in quantity demanded = 160

Therefore, % change in quantity demanded = 20%

% change in price = 25%

$$E_d = \frac{\%\ \text{change in q}}{\%\ \text{change in p}}$$

$$E_a = \frac{20}{25} = 0.8$$

Illustration 3

The price of a good decreases from ₹100 to ₹60 per unit. If the price elasticity of demand for it is 1.5 and the original quantity demanded is 30 units, calculate the new quantity demanded. **(ICAI Module)**

Solution

$$E_P = \frac{\Delta q}{\Delta p} \times \frac{p}{q}$$

$$\text{Here, } 1.5 = \frac{\Delta q}{40} \times \frac{100}{30} = 18$$

Therefore, new quantity demanded = 30 + 18 = 48 units

Illustration 4

A consumer buys 80 units of a good at a price of ₹4 per unit. Suppose price elasticity of demand is – 4. At what price will he buy 60 units? **(ICAI Module)**

$$E_d = \frac{\Delta q}{\Delta p} \times \frac{p}{q}$$

$$4 = \frac{20}{x-4} \times \frac{4}{80}$$

$$4 = \frac{1}{x-4}$$

x = 4.2 per unit

Mid-Point Method or Arc Elasticity Method

Often we may be required to calculate price elasticity over some portion of the demand curve rather than at a single point. In other words, the elasticity may be calculated over a range of prices. When price and quantity changes are discrete and large, we have to measure elasticity over an arc of the demand curve.

When price elasticity is to be found between two prices (or two points on the demand curve say, A and B in figure 8) the question arises as to which price and quantity should be taken as base. This is because elasticity found by using original price and quantity figures as base will be different from the one derived by using new price and quantity figures. Therefore, in order to avoid confusion, rather than choose the initial or the final price and quantity, the mid-point method is used i.e. the averages of the two prices and quantities are taken as (i.e. original and new) base. The midpoint formula is an approximation to the actual percentage change in a variable, but it has the advantage of consistent elasticity values when price moves in either directions.

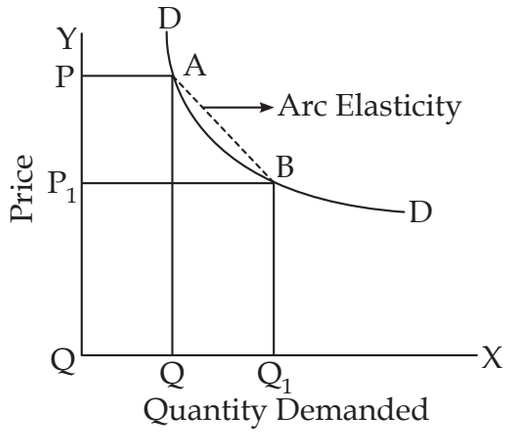


Fig.: Arc Elasticity

The arc elasticity can be found out by using the formula: We drop the minus sign and use the absolute value.

$$E_p = \frac{\frac{Q_2 - Q_1}{(Q_2 + Q_1)/2}}{\frac{P_2 - P_1}{(P_2 + P_1)/2}}$$

$$E_p = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$$

Where P_1, Q_1 are the original price and quantity and P_2, Q_2 are the new ones.

Thus, if we have to find elasticity of demand for headphones between:

P_1 = Rs. 500 Q_1 = 100

P_2 = ₹400 Q_2 = 150

We will use the formula

$$E_P = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$$

Or, $$E_P = \frac{50}{250} \times \frac{900}{100}$$

or $E_p = 1.8$

The arc elasticity will always lie somewhere (but not necessarily in the middle) between the point elasticities calculated at the lower and the higher prices.

Questions

1. Calculate the price elasticity of demand when the price increases from ₹20 to ₹22 and qthe uantity demanded falls from 300 to 200 units. **[June 2024]**

(*a*) 4.2 (*b*) –4.2 (*c*) 4 (*d*) –4

2. If the local pizzeria raises the price of a medium pizza from ₹60 to ₹100 and quantity demanded falls from 700 pizzas a night to 100 pizzas a night, the price elasticity of demand for pizzas is: (Use Arc Elasticity Method)

(*a*) .67 (*b*) 1.5 (*c*) 2.0 (*d*) 3.0

3. Suppose the price of movies seen at a theatre rises from ₹120 per person to ₹200 per person. The theatre manager observes that the rise in price causes attendance at a given movie to fall from 300 persons to 200 persons. What is the price elasticity of demand for movies? (Use Arc Elasticity Method)

(*a*) 0.5 (*b*) 0.8 (*c*) 1.0 (*d*) 1.2

4. Suppose a department store has sale on its silverware. If the price of a plate-setting is reduced from ₹300 to ₹200 and the quantity demanded increases from 3,000 plate-settings to 5,000 plate-settings, what is the price elasticity of demand for silverware? (Use Arc Elasticity Method)

(*a*) 0.8 (*b*) 1.0 (*c*) 1.25 (*d*) 1.50

Answers

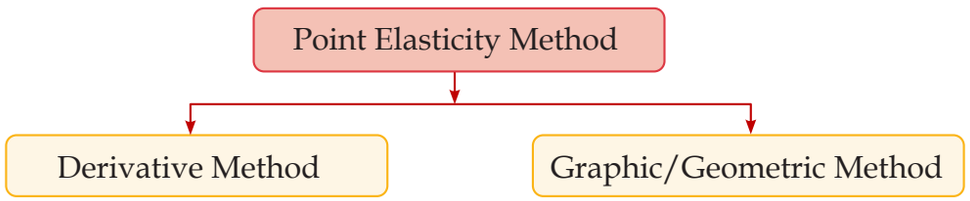
1. (*b*) **2.** (*d*) **3.** (*b*) **4.** (*c*)

Point Elasticity Method

This method is used when there is Very Negligible Change in Price. It includes 2 methods –

1. Derivative method and

2. Geometric method



The point elasticity of demand is the price elasticity of demand at a particular point on the demand curve. The concept of point elasticity is used for measuring price elasticity where the change in price is infinitesimal. Price elasticity is a key element in applying marginal analysis to determine optimal prices. Since marginal analysis works by evaluating "small" changes taken with respect to an initial decision, it is useful to measure elasticity with respect to an infinitesimally small change in price.

Point elasticity makes use of derivative rather than finite changes in price and quantity. It may be defined as:

$$E_p = \frac{-dq}{dp} \times \frac{p}{q}$$

Where $\frac{dq}{dp}$ is the derivative of quantity with respect to price at a point on the demand curve, dP and p and q are the price and quantity at that point. Economists generally use the word "elasticity" to refer to point elasticity.

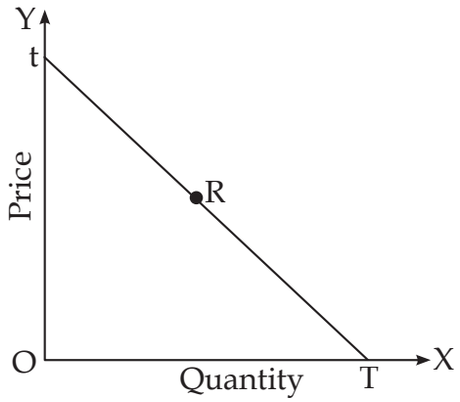


Fig: Point Elasticity

Point elasticity is, therefore, the product of price quantity ratio at a particular point on the demand curve and the reciprocal of the slope of the demand line.

Q. Given the demand function, Q = 10 – 2P. Calculate E_p when Price is 2.

Solution:

$$E_p = \frac{dQ}{dP} \times \frac{P}{Q}$$

$Q = 10 - 2P$

$= 10 - 2(2) = 6$

$$= -2 \times \frac{2}{6} = -0.67$$

Q. Given the demand function, Q = 50 – 4P. Calculate E_p when Price is 5.

Solution:

$$E_P = -\frac{dQ}{dP} \times \frac{P}{Q}$$

$Q = 50 - 4(5) = 30$

$$= -4 \times \frac{5}{30} = -0.67$$

Measurement of Elasticity on a Linear Demand Curve-Geometric Method

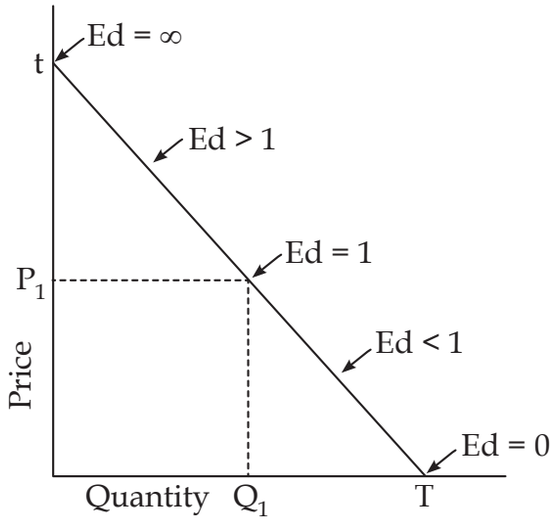
By definition, the price elasticity of demand is the change in quantity associated with a change in price ($\Delta Q/\Delta P$) times the ratio of price to quantity ($\Delta P/\Delta Q$) Therefore, the price elasticity of demand depends not only on the slope of the demand curve but also on the price and quantity. The elasticity, therefore, varies along the curve as price and quantity change. The slope of a linear demand curve is constant. However, the elasticity at different points on a linear demand curve

would be different. When price is high and quantity is small, the elasticity is high. The elasticity becomes smaller as we move down the curve.

Given a straight line demand curve tT, point elasticity at any point say R can be found by using the formula

$$\frac{RT}{Rt} = \frac{\text{lower segment}}{\text{upper segment}}$$

Using the above formula we can get elasticity at various points on the demand curve.



Elasticity at Different Points on the Demand Curve

Thus, we see that as we move from T towards t, elasticity goes on increasing. At the midpoint it is equal to one, at point t, it is infinity and at T it is zero.

Questions

1. Point elasticity is useful for which of the following situations?

(*a*) The bookstore is considering doubling the price of notebooks

(*b*) A restaurant is considering lowering the price of its most expensive dishes by 50 percent

(*c*) An auto producer is interested in determining the response of consumers to the price of cars being lowered by 100

(*d*) None of the above

2. The demand function is given as Q = 100 – 10P. Find the elasticity using point method, when price is ₹6.

(*a*) 1.5 (*b*) –3 (*c*) –5 (*d*) –1.5

3. The demand function is given as Q = 100 – 2P. Find the elasticity using point method, when price is ₹15.

(*a*) 4.28 (*b*) –3.56 (*c*) –0.42 (*d*) –4.28

4. If the price of air – conditioner increases from 30,000 to 30,010 and resultant change in demand is negligible, we use the measure of _____ to measure elasticity.

(*a*) Point elasticity of demand since it is a small change

(*b*) Arc elasticity of demand since it is a small change

(*c*) Price elasticity based on average prices method

(*d*) Any of the above

Answers

1. (*c*) **2.** (*d*) **3.** (*c*) **4.** (*a*)

Total Outlay/Expenditure Method of E_p

According to this method, E_d is calculated by checking the relationship b/w price of commodity and total expenditure. The value of total expenditure and total revenue are always same.

Where, TE = Price x Quantity

Further,

1. If there is positive relationship between price of commodity and total expenditure or total revenue then E_d is less than unitary elastic i.e., $E_p < 1$.

For Example:

Price (in Rs.)	Quantity Demanded (in units)	T.E. (in Rs.)
10	20	200
20	15	300

2. If there is negative relationship between price and total expenditure or total revenue and E_p is more than unitary elastic i.e., $E_p > 1$.

For Example:

Price (in Rs.)	Quantity Demanded (in units)	T.E. (in Rs.)
10	20	200
20	15	100

3. If Total expenditure or total revenue does not change due to change in the price of the commodity then E_p is unitary elastic i.e., $E_p = 1$.

For Example:

Price (in Rs.)	Quantity Demanded (in units)	T.E. (in Rs.)
10	20	200
20	15	100

Except in the rare case of a good with perfectly elastic or perfectly inelastic demand, when a seller raises the price of a good, there are two effects which act in opposite directions on revenue.

- **Price effect:** After a price increase (decrease), each unit sold sells at a higher (lower) price, which tends to raise (lower) the revenue.
- **Quantity effect:** After a price increase (decrease), fewer (more) units are sold, which tends to lower (increase) the revenue.

What will be the net effect on Total Revenue?

It depends on which effect is stronger. If the price effect which tends to raise total revenue is the stronger of the two effects, then total revenue goes up. If the quantity effect, which tends to reduce total revenue, is the stronger, then total revenue goes down.

The price elasticity of demand tells us what happens to the total revenue when price changes: its size determines which effect, the price effect or the quantity effect, is stronger.

The main drawback of this method is that by using this we can only say whether the demand for a good is elastic or inelastic; we cannot find out the exact coefficient of price elasticity.

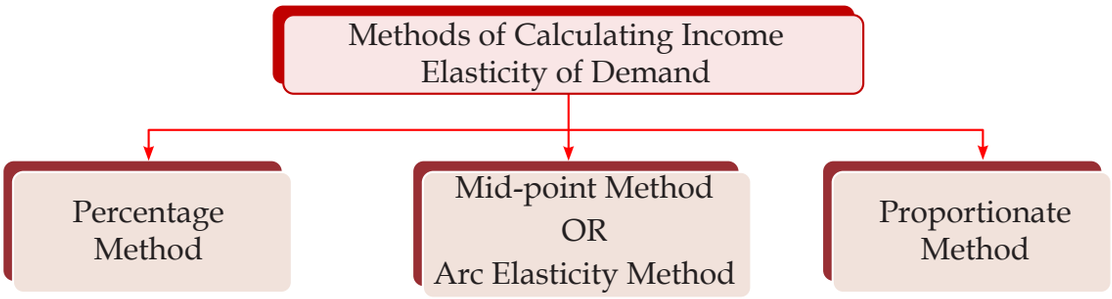
1. 'No matter what the price of coffee is, Arjun always spends a total of exactly 100 per week on coffee. The statement implies that:

(*a*) Arjun is very fond of coffee, and therefore, he has an inelastic demand for coffee

(*b*) Arjun has an elastic demand for coffee

(*c*) Arjun's demand for coffee is relatively less elastic

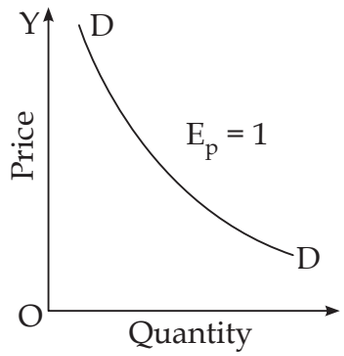
(*d*) **Arjun's demand for coffee is unit elastic**



DEGREES/TYPES OF E_p

1. $E_p = 1 \Rightarrow$ Unitary Elastic Demand
2. $E_p > 1 \Rightarrow$ More than unitary Elastic Demand or Elastic Demand
3. $E_p < 1 \Rightarrow$ Less than unitary Elastic Demand or Inelastic Demand
4. $E_p = 0 \Rightarrow$ Perfectly Inelastic Demand
5. $E_p = \infty \Rightarrow$ Perfectly Elastic Demand

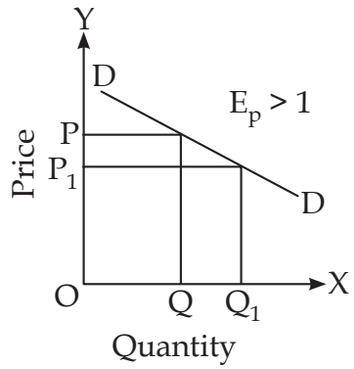
$E_p = 1 \Rightarrow$ Unitary Elastic Demand



Here, percentage change in quantity demanded is equal to the percentage change in price of the commodity.

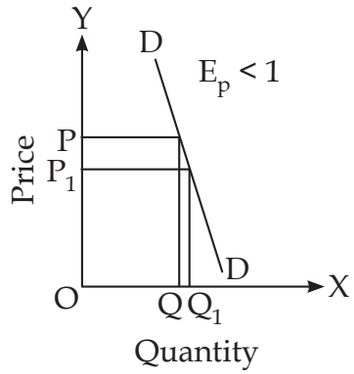
$E_p > 1 \Rightarrow$ More than unitary Elastic Demand or Elastic Demand

Here, percentage change in quantity demanded is more than the percentage change in price of the commodity. Demand curve will be flatter in this case.



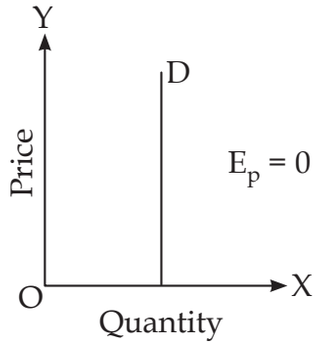
$E_p < 1 \Rightarrow$ Less than unitary Elastic Demand or Inelastic Demand

Here, percentage change in quantity demanded is less than the percentage change in price of the commodity. Demand curve will be steeper in this case.



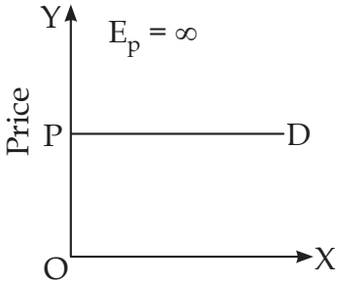
$E_p = 0 \Rightarrow$ Perfectly Inelastic Demand

Here, percentage change in price of the commodity is zero. Demand curve looks like a horizontal line parallel to Y- axis.



$Ep = \infty \Rightarrow$ Perfectly Elastic Demand

Here, percentage change in quantity demanded is zero. Demand curve looks like a horizontal line parallel to x-axis.



ADVERTISEMENT ELASTICITY OF DEMAND

Advertisement elasticity of sales or promotional elasticity of demand is the responsiveness of a good's demand to changes in the firm's spending on advertising.

The advertising elasticity of demand measures the percentage change in demand that occurs given a one percent change in advertising expenditure.

Advertisement elasticity varies between zero and infinity. It is measured by using the formula:

$$E_a = \frac{\% \text{ Change in Quantity Demanded}}{\% \text{ Change in Spending on Avertising}}$$

Advertising elasticity measures the effectiveness of an advertisement campaign in bringing about new sales.

Advertising elasticity of demand is typically positive. Higher the value of advertising elasticity greater will be the responsiveness of demand to change in advertisement.

Elasticity	Interpretation
$E_a = 0$	Demand does not respond at all to increase in advertisement expenditure.
$0 < E_a < 1$	Increase in demand is less than proportionate to the increase in advertisement expenditure
$E_a = 1$	Demand increases in the same proportion as advertisement expenditure increases
$E_a > 1$	Demand increases at a higher rate than increase in advertisement expenditure

As far as a business firm is concerned, the measure of advertisement elasticity is useful in understanding the effectiveness of advertising and in determining the optimum level of advertisement expenditure.

Questions

1. If change in quantity demanded is 60% and change in advertisement expenditure is 20% then what will be the advertisement elasticity? **(Sept. 2024)**

(*a*) 3 (*b*) 0.33 (*c*) 6 (*d*) 20

2. The zero advertisement elasticity represents:

(*a*) Demand responds proportionately (*b*) Demand does not respond proportionately

(*c*) Demand does not respond at all (*d*) None of the above

3. If there is no change at all in the quantity demanded, when price changes, the elasticity will be _____.

(*a*) Zero (*b*) Unitary

(*c*) Greater than one (*d*) Less than one

4. Identify the coefficient of price elasticity when the percentage increase in the quantity of a good demanded is smaller than the percentage fall in its price:

(*a*) Equal to one (*b*) Greater than one

(*c*) Smaller than one (*d*) Zero

5. The price of hot dogs increases by 22% and the quantity of hot dogs demanded falls by 25%. This indicates that demand for hot dogs is:

(*a*) Elastic (*b*) Inelastic (*c*) Unitarily elastic (*d*) Perfectly elastic

6. If elasticity is _____, then the quantity demanded does not respond at all to a price change.

(*a*) Zero (*b*) One (*c*) Greater than one (*d*) Less than one

7. The demand is said to be _____ when the percentage change in quantity demanded is less than the percentage change in price.

(*a*) Elastic (*b*) Inelastic (*c*) Perfectly elastic (*d*) None of the above

8. If a consumer is a habitual consumer of a commodity, no matter how much its price changes, the demand for the Commodity will be _____.

(*a*) Elastic (*b*) Inelastic (*c*) Perfectly elastic (*d*) Unitary

Answers

1. (*a*) **2.** (*c*) **3.** (*a*) **4.** (*c*) **5.** (*a*) **6.** (*a*) **7.** (*b*) **8.** (*b*)

INCOME ELASTICITY OF DEMAND

Income elasticity of demand is the degree of responsiveness of the quantity demanded of a good to changes in the income of consumers.

In symbolic form,

$$E_i = \frac{\text{Percentage change in demand}}{\text{Percentage change in income}}$$

This can be given mathematically as follows:

$$E_i = \frac{\Delta Q}{Q} \div \frac{\Delta Y}{Y}$$

$$E_i = \frac{\Delta Q}{Q} \times \frac{Y}{\Delta Y}$$

$$E_i = \frac{\Delta Q}{\Delta Y} \times \frac{Y}{Q}$$

$E_i = 0$	It happens when demand remains unchanged. It implies that the demand for the good is quite unresponsive to changes in income
$E_i > 0$ or Positive	An increase in income leads to an increase in demand for the good. This happens in the case of normal goods.
$E_i < 0$ or Negative	Goods having negative income elasticity are known as inferior goods and their demand falls as income increases. The reason is that when income increases, consumers choose to consume superior substitutes.

The following examples will make the above concepts clear:

1. The income of a household rises by 10%, the demand for wheat rises by 5%.

$\frac{5\%}{10\%}.5(E_i < 1)$	Since 0 < 0.5 < 1, wheat is a normal good and fulfils a necessity

2. The income of a household rises by 10%, the demand for T.V. rises by 20%.

$\frac{20\%}{10\%}2(E_i > 1)$	Since 2 > 1 T.V. is a luxurious commodity

3. The incomes of a household rises by 5%, the demand for bajra falls by 2%.

$\frac{(-)2\%}{5\%}(-).4(E_i < 0)$	Since –4 < Bajra is an inferior commodity in the eyes of the household.

4. The income of a household rises by 7%, the demand for commodity X rises by 7%.

$\frac{7\%}{7\%}1(E_i = 1)$	Since income elasticity is 1, X has unitary income elasticity.

5. The income of a household rises by 5%, the demand for buttons does not change at all.

$\frac{0\%}{5\%}0(E_i = 0)$	Buttons have zero income-elasticity.

A car dealer sells new as well as used cars. Sales during the previous year were as follows:

Car Type	Price	Quantity (Nos)
New	6.5 lakhs	400
Used	60,000	4000

During the previous year, other things remaining the same, the real incomes of the customers rose on average by 10%. During the last year sales of new cars increased to 500, but sales of used cars declined to 3,850.

What is the income elasticity of demand for the new as well as used cars? What inference do you draw from these measures of income elasticity?

Solution

Income Elasticity of demand for new cars

Percentage change in income = 10%, given

Percentage change in quantity of new cars demanded = $(\Delta Q/Q) \times 100 = (100/400) \times 100 = 25\%$

Income elasticity of demand = 25%/10% = + 2.5

Nev/car is therefore income elastic. Since income elasticity is positive, new car is a normal good.

Income Elasticity of demand for used cars

Percentage change in income = 10%, given % change in quantity of used cars demanded = $(\Delta Q/Q) \times 100 = (-150/4000) \times 100 = -3.75\%$ – Income elasticity of demand = –3.75/10= –375

Since income elasticity is negative, used car is an inferior good.

Please Note This

$E_i = 1$	When income elasticity of demand is equal to one, the proportion of income spent on goods remains the same as consumer's income increases. This represents a useful dividing line.
$E_i > 1$	It shows that the good bulks larger in consumer's expenditure as he becomes richer. Such goods are called luxury goods.
$E_i < 1$	The good is either relatively less important in the consumer's eye or, it is a necessity.

Proportionate Method of Measuring Income Elasticity of Demand

There is a useful relationship between income elasticity for a good and the proportion of income spent on it. This is described in the following three points:

- If the proportion of income spent on a good remains the same as income increases, then income elasticity for that good is equal to one.
- If the proportion of income spent on a good increases as income increases, then the income elasticity for that good is greater than one. The demand for such goods increases faster than the rate of increase in income.
- If the proportion of income spent on a good decreases as income rises, then income elasticity for the good is positive but less than one. The demand for income-inelastic goods rises, but substantially slowly compared to the rate of increase in income.

Questions

1. For all _____ goods, the income elasticity is positive.

(*a*) Normal (*b*) Interior

(*c*) Luxury (*d*) All of the above

2. Suppose potatoes have (–) 0.4 as income elasticity. We can say from the data given that:

(*a*) Potatoes are inferior goods

(*b*) Potatoes are superior goods

(*c*) Potatoes are necessities

(*d*) There is a need to increase the income of consumers so that they can purchase potatoes

3. Which of the following statements about inferior goods is/are false?

I. Inferior goods are those that we will never buy, no matter how cheap they are.

II. Inferior goods are those that we buy more of, if we become poorer.

III. Inferior goods are those that we buy more of, if we become richer.

(*a*) I and III only

(*b*) I only

(*c*) III only

(*d*) I, II and III

4. The quantity purchased remains constant irrespective of the change in income. This is known as

(*a*) Negative income elasticity of demand

(*b*) Income elasticity of demand is less than one

(*c*) Zero income elasticity of demand

(*d*) Income elasticity of demand is greater than one

5. As income increases, the consumer will go in for superior goods and consequently the demand for inferior goods will fall. This means inferior goods have

(*a*) Income elasticity of demand is is less than one

(*b*) Negative income elasticity of demand

(*c*) Zero income elasticity of demand

(*d*) Unitary income elasticity of demand

6. When income increases the money spent on necessaries of life may not increase in the same proportion. This means

(*a*) Income elasticity of demand is zero

(*b*) Income elasticity of demand is one

(*c*) Income elasticity of demand is greater than one

(*d*) Income elasticity of demand is less than one

7. The luxury goods like jewellery and fancy articles will have

(*a*) Low income elasticity of demand (*b*) High income elasticity of demand

(*c*) Zero income elasticity of demand (*d*) None of the above

8. A shopkeeper sells two commodities A and B, which are close substitutes of each other. It is observed that when the price of commodity A rises by 20% the demand for B increases by 30%. What is the cross price elasticity for commodity B against the price of commodity A? **[Jan. 2025]**

(*a*) +1 (*b*) –1 (*c*) +1.5 (*d*) –1.5

Answers

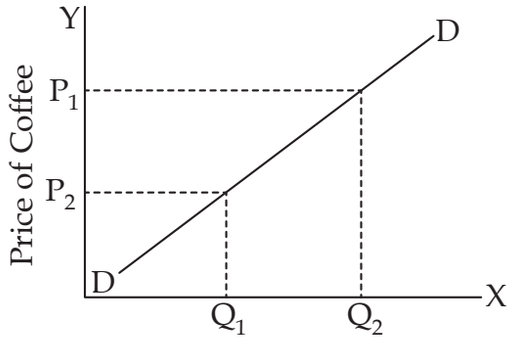
1. (*a*) **2.** (*a*) **3.** (*a*) **4.** (*c*) **5.** (*b*) **6.** (*d*) **7.** (*b*) **8.** (*c*)

CROSS-PRICE ELASTICITY OF DEMAND

The demand for a particular commodity may change due to changes in the prices of related goods. These related goods may be either complementary goods or substitute goods. This type of relationship is studied under Cross Demand'. Cross demand refers to the quantities of a commodity or service which will be purchased with reference to changes in price, not of that particular commodity, but of other inter-related commodities, other things remaining the same. It may be defined as the quantities of a commodity that consumers buy per unit of time, at different prices of a related article', 'other things remaining the same'. The assumption 'other things remaining the same' means that the income of the consumer, and the price of the commodity will remain constant.

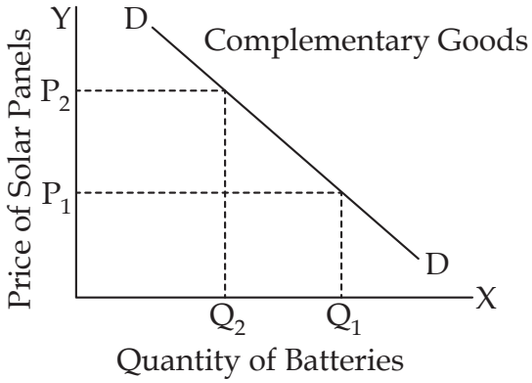
(a) Substitute Products and Demand

In the case of substitute commodities, the cross-demand curve slopes upwards (i.e positively), showing that more quantities of a commodity, will be demanded whenever there is a rise in the price of a substitute commodity. In following figure, the quantity demanded of tea is given on the X axis. Y axis represents the price of coffee which is a substitute for tea. When the price of coffee increases, due to the operation of the law of demand, the demand foi coffee falls. The consumers will substitute tea in the place of coffee. The price of tea is assumed to be constant. Therefore, whenever there is an increase in the price of one commodity, the demand for the substitute commodity will increase.



(b) Complementary Goods

In the case of complementary goods, as shown in the figure below, a change in the price of a good will have an opposite reaction on the demand for the other commodity which is closely related or complementary. For instance, an increase in demand for solar panels will necessarily increase the demand for batteries. The same is the case with complementary goods such as bread and butter; car and petrol, electricity and electrical gadgets etc. Whenever there is a fall in the demand for solar panels due to a rise in their prices, the demand for batteries will fall, not because the price of batteries has gone up, but because the price of solar panels has gone up. So, we find that there is an inverse relationship between price of a commodity and the demand for its complementary good (other things remaining the same).



Complementary Goods

We shall now look into the cross - price elasticity of demand.

The cross-price elasticity of demand between two goods measures the effect of the change in one good s price on the quantity demanded of the other good. Here, we consider the effect of changes in relative prices within a market on the pattern of demand. A change in the demand for one good

in response to a change in the price of another good represents cross elasticity of demand of the former good for the latter good. It is equal to the percentage change in the quantity demanded of one good divided by the percentage change in the other good's price.

$$E_C = \frac{\text{Percentage change in quantity demanded of good X}}{\text{Percentage change in price of good Y}}$$

Symbolically, (mathematically)

$$E_C = \frac{\Delta q_x}{q_x} \div \frac{\Delta p_y}{p_y}$$

$$E_C = \frac{\Delta q_x}{\Delta p_y} \div \frac{p_y}{q_x}$$

Where E_c stands for cross elasticity.

q_x stands for original quantity demanded of X.

Δq_x stands for change in quantity demanded of X

p_y stands for the original price of good Y.

ΔP_y stands for a small change in the price of Y.

In the case of the cross-price elasticity of demand, the sign (plus or minus) is very important: it tells us whether the two goods are complements or substitutes.

When two goods X and Y are substitutes, the cross-price elasticity of demand is positive:

When the cross-price elasticity of demand is positive, its size/value is a measure of how closely substitutable the two goods are.

Greater the cross elasticity, the closer is the substitute.

- If two goods are perfect substitutes for each other, the cross elasticity between them is **infinite.**
- If two goods are close substitutes, the cross-price elasticity will be **positive** and **large**.
- If two goods are not close substitutes, the cross-price elasticity will **be positive and small.**
- If two goods are totally unrelated, the cross-price elasticity between them is **zero.**

When two goods are complementary (tea and sugar) to each other, the cross elasticity between them is **negative.**

The size of the cross-price elasticity of demand between two complements tell us how strongly complementary they are.

If the cross-price elasticity is only slightly below zero, they are weak complements; if it is negative and very high, they are strong complements.

A shopkeeper sells only two brands of note books Imperial and Royal. It is observed that when the price of Imperial rises by 10% the demand for Royal increases by 15%.What is the cross price elasticity for Royal against the price of Imperial?

Solution

$$E_C = \frac{\text{Percentage change in quantity demanded of good X}}{\text{Percentage change in price of good Y}}$$

$$E_C = \frac{15\%}{10\%} = +1.5$$

The two brands of note book Imperial and Royal are substitutes with significant substitutability.

Illustration 8

The cross price elasticity between two goods X and Y is known to be - 0.8. If the price of good Y rises by 20%, how will the demand for X change?

Solution

Inserting the values in the formula:

–0.8 = X/20%

% change in quantity demanded of X = 20% x – 0.8 = -16%

Since cross elasticity is negative, X and Y are complementary goods.

Illustration 9

The price of 1kg of tea is 30. At this price, 5kg of tea is demanded. If the price of coffee rises from 25 to 35 per kg, the quantity demanded of tea rises from 5kg to 8kg. Find out the cross price elasticity of tea.

Solution

$$\text{Cross elasticity} = \frac{\Delta q_x}{\Delta p_y} \times \frac{p_y}{q_x} \text{ Here } \begin{matrix} x = \text{tea} \\ y = \text{coffee} \end{matrix}$$

$$E_C = \frac{8-5}{10} \times \frac{25}{5} = \frac{3}{10} \times \frac{25}{5} = +1.5$$

The elasticity of demand of tea is +1.5 showing that the demand of tea is highly elastic with respect to coffee. The positive sign shows that tea and coffee are substitute goods.

Illustration 10

The price of 1 kg of sugar is 150. At this price 10 kg is demanded. If the price of tea falls from 30 to 25 per kg, the consumption of sugar rises from 10 kg to 12 kg. Find out the cross price elasticity and comment on its value.

Solution

$$\text{Cross elasticity} = \frac{\Delta q_x}{\Delta p_y} \times \frac{p_y}{q_x} \text{ Here } \begin{matrix} x = \text{Sugar} \\ y = \text{Tea} \end{matrix}$$

$$= \frac{2}{-5} \times \frac{30}{10} = (-)1.2$$

Since the elasticity is -1.2, we can say that sugar and tea are complementary in nature.

Questions

1. The cross elasticity between Rye bread and Whole Wheat bread is expected to be:

(*a*) Positive (*b*) Negative (*c*) Zero (*d*) Can't Say

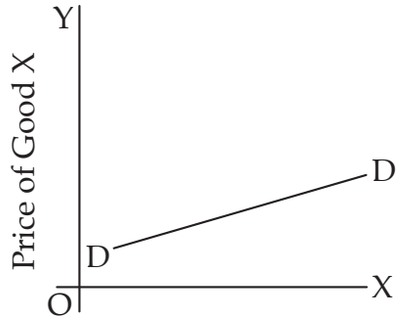
2. The cross elasticity between personal computers and software's is:

(*a*) Positive (*b*) Zero (*c*) Negative (*d*) One

3. The cross elasticity between Bread and DVDs is:

(*a*) Positive (*b*) Negative (*c*) Zero (*d*) One

4. The following diagram shows the relationship between price of Good X and quantity demanded of Good Y. What we infer from the diagram is;



(*a*) Good X and Good Y are perfect complements

(*b*) Good X and Good Y are perfect substitutes

(*c*) Good X and Good Y are remote substitutes

(*d*) Good X and Good Y are close substitutes

5. When the numerical value of cross elasticity between two goods is very high, it means

(*a*) The goods are perfect complements and therefore have to be used together

(*b*) The goods are perfect substitutes and can be used with ease in place of one another

(*c*) There is a high degree of substitutability between the two goods

(*d*) The goods are neutral and therefore cannot be considered as substitutes

6. When two goods are complementary, the cross elasticity between them is: **(May 2025)**

(*a*) Infinite

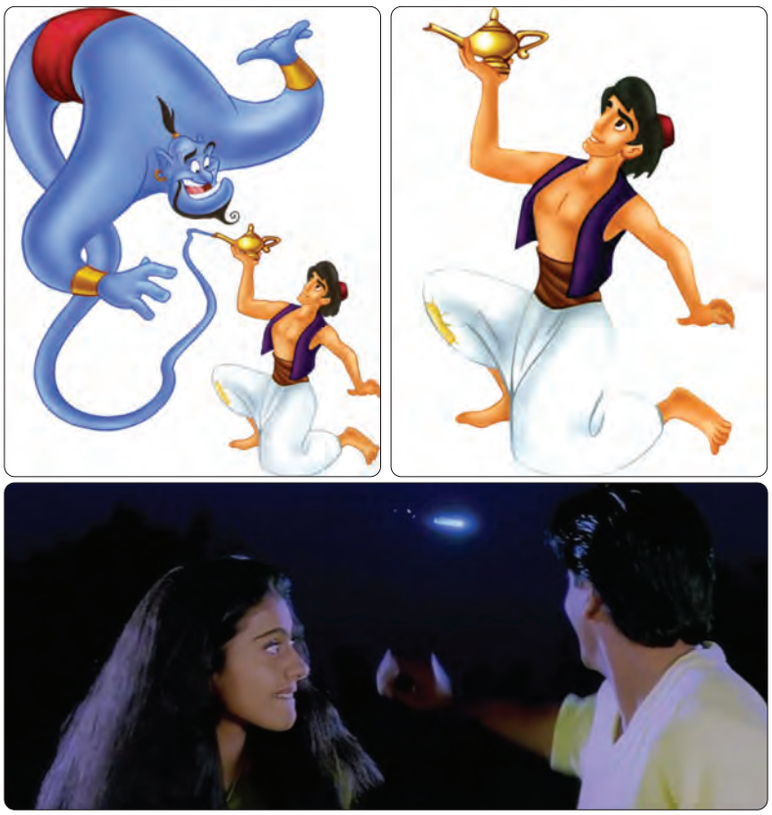
(*b*) Positive and large

(*b*) Zero

(*d*) Negative

Answers

1. (*a*) **2.** (*c*) **3.** (*c*) **4.** (*d*) **5.** (*c*) **6.** (*d*)



WANT

- In Economics, the term 'want' refers to a wish, desire or motive to use or own goods & services that give satisfaction.
- Wants may arise due to physical, psychological or social factors.
- Since the resources are limited, we need to make a choice between the urgent wants and the not so urgent wants.



NATURE OF HUMAN WANTS

- Wants are unlimited in number. All wants cannot be satisfied.
- Wants differ in intensity/feel. Some wants are urgent, others are less intensely felt / less urgent.
- Each want is satiable (able to be met/capable of being satisfied).

- Wants are competitive. Multiple Wants compete with each other for satisfaction because resources are scarce in relation to wants.
- Wants are complementary. Some wants can be satisfied only by using more than one good or group of goods.
- A particular want may be satisfied in alternative/many ways.
- Wants are subjective (differ from person to person) and relative (vary with time and place).
- Some wants recur/repeat (will have to buy again and again like food) whereas others do not occur again and again like durable goods.
- Wants may become habits and customs.
- Wants are affected by income, taste, fashion, advertisements and social norms and customs.
- Wants arise from multiple causes such as physical and psychological instincts, social obligations and individual's economic and social status.

CLASSIFICATION OF WANTS

- Wants are classified into three categories:
  1. Necessaries
  2. Comforts
  3. Luxuries



- **Necessaries:**
  1. Necessaries for life or existence are things necessary to meet the minimum physiological needs for the maintenance of life such as minimum amount of food, clothing and shelter.
  2. Necessaries for Efficiency: Man requires something more than the necessities of life to maintain longevity, energy and efficiency of work, such as nourishing food, adequate clothing, clean water, comfortable dwelling, education, recreation etc. These are necessary for efficiency.
  3. Conventional necessaries arise either due to pressure of habit or due to compelling social customs and conventions. They are not necessary either for existence or for efficiency.
- **Comforts:** While necessaries make life possible, comforts make life comfortable and satisfying. Comforts are less urgent than necessaries. Tasty and wholesome food, a good house, fashionable clothes that suit different occasions, audio-visual and labour-saving equipment's, etc. make life more comfortable.

- **Luxuries:** Luxuries are those wants which are superfluous/not compulsory and expensive. They are not essential for living. Items such as expensive clothing, exclusive motor cars, classy furniture, goods used for vanity etc. fall under this category.



Questions

1. Which of the following is not the characteristic of wants of human beings?

(*a*) Wants are unlimited

(*b*) Wants are subjective and relative

(*c*) Wants are affected by income, taste, fashion, advertisements and social customs

(*d*) Wants do not vary with time, place and person

2. Wants arise from multiple causes including

(*a*) Natural instincts

(*b*) Social obligations

(*c*) Individual's economic and social status

(*d*) All of the above

Answers

1. (*d*) **2.** (*d*)








MEANING OF UTILITY

- It refers to the want satisfying power of a commodity.
- It is measured in terms of utile/utils.

Utility v/s Usefulness

- Utility is a psychological concept. It has no concerns with moral and ethical values.
- Utility is not the same thing as usefulness.
- From the economic standpoint, even harmful/unuseful things like liquor, may be said to have utility because people want them. Thus, in Economics, the concept of utility is different from usefulness.
- The two important concepts of utility are Total Utility (TU) and Marginal Utility (MU) which are useful in theories of consumer behaviour.

Meaning of Marginal Utility

- It refers to the additional utility obtained from the consumption of additional unit of a commodity.
  $MU = TU_n - TU_{n-1}$ Or $MU = \Delta TU/\Delta N$

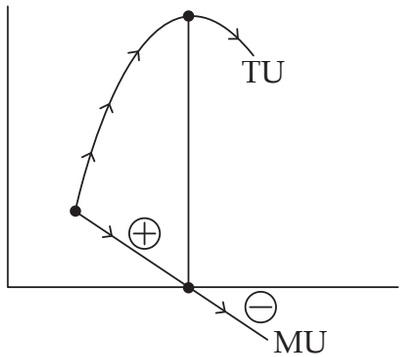
Total Utility

- It refers to the cumulative sum total of marginal utility.
- TU refers to the sum total of utilities derived from the consumption of all the units of a commodity consumed by a consumer at a given time. In other words, it is a sum of marginal utilities up to the units consumed by a consumer. TU = ΣMU

Relationship between TU & MU

There is unique relationship between TU and MU which can be explained with the help of below schedule and diagram.

Quantity	MU	TU
1	10	10
2	8	18
3	6	24
4	0	24
5	–2	22



- Both TU and MU are interrelated.
  $TU = \Sigma MU$ & $MU = TU_n - TU_{n-1}$
- At first unit, TU = MU.
- Initially, when TU is increasing at decreasing rate, MU is decreasing but remains positive.
- When TU is maximum and constant, MU = 0 (zero).
- When TU starts decreasing, MU becomes negative.

Questions

1. _____ refers to the want satisfying power of a commodity.

(*a*) Supply (*b*) Demand

(*c*) Utility (*d*) Indifference Curve

2. What is the Point of Satiation?

(*a*) Point at which T.U. is maximum (*b*) Point at which M.U. is least

(*c*) Point at which M.U. is maximum (*d*) Point at which M.U. = T.U.

3. M.U. is 0 when,

(*a*) T.U. is increasing (*b*) T.U. is decreasing

(*c*) T.U. is maximum (*d*) Both (*b*) and (*c*)

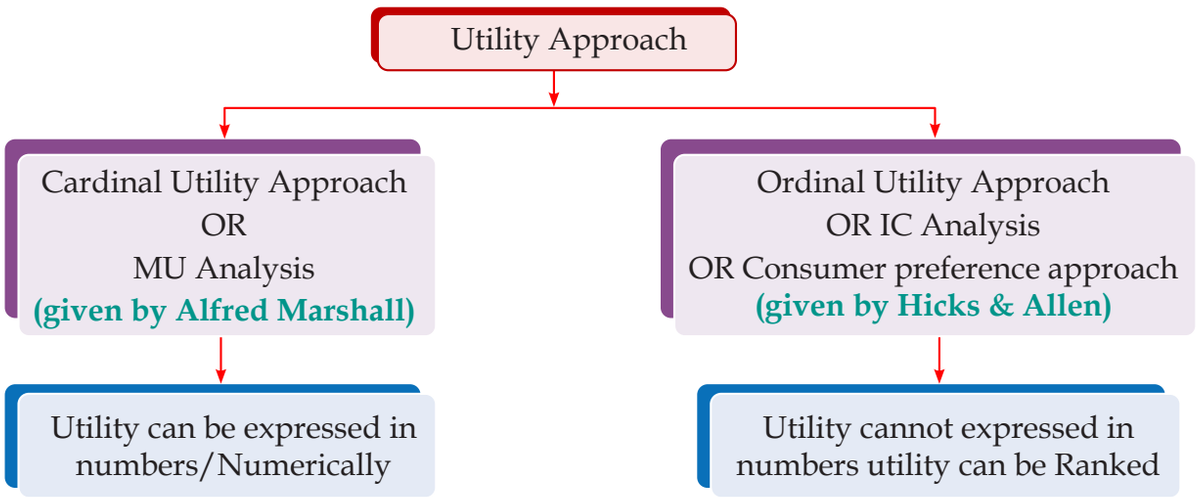
4. T.U. is negative when

(*a*) M.U. is 0 (*b*) M.U. is negative

(*c*) T.U. = M.U. (*d*) None

Answers

1. (*c*) **2.** (*a*) **3.** (*c*) **4.** (*d*)



CARDINAL UTILITY APPROACH/MU ANALYSIS/LAW OF DIMINISHING MU

This law states that as a consumer takes more units of a good, the extra satisfaction derived from an additional unit of the good decreases.

It is worth noting that it is the marginal utility, not the total utility, that declines with an increase in the consumption of a good.

Assumptions of the law of diminishing marginal utility

(i) The different units consumed should be identical in all respects. The habit, taste, treatment and income of the consumer also remain unchanged.

(ii) The different units consumed should consist of standard units. If a thirsty man is given water by successive spoonful, the utility of second spoonful may conceivably be greater than the utility of the first.

(iii) There should be no time gap or interval between the consumption of one unit and another unit i.e. there should be continuous consumption.

(iv) The law may not apply to articles like gold, cash where a greater quantity may increase the lust for it.

(v) The shape of the utility curve may be affected by the presence or absence of articles which are substitutes or complements.

Question

1. The successive units of stamps collected by a little boy give him greater and greater satisfaction. This is a clear case of

(*a*) Operation of the law of demand

(*b*) Consumer surplus enjoyed in hobbies and rare collections

(*c*) Exception to the law of diminishing utility

(*d*) None of the above

Answer

1. (*c*)

CONSUMER SURPLUS

Marshall defined the concept of consumer surplus as the "excess of the price which a consumer would be willing to pay rather than go without a thing over that which he actually does pay", is called consumer surplus."

Consumer surplus = What a consumer is ready to pay – What he actually pays

The concept of consumer surplus is derived from the law of diminishing marginal utility. As we know, according to the law of diminishing marginal utility, the more of a thing we have, the lesser the marginal utility it has. In other words, as we purchase more of a good, its marginal utility goes on diminishing. The consumer is in equilibrium when the marginal utility of a good is equal to its price i.e., he purchases that many number of units of a good at which marginal utility is equal to price (It is assumed that perfect competition prevails in the market). Since the price is the same for all units of the good he purchases, he gets extra utility for all units consumed by him except for the one at the margin. This extra utility or extra surplus for the consumer is called consumer surplus.

Consider following table in which we have illustrated the measurement of consumer surplus in case of commodity X. There is only one price for a commodity in the market at a particular point of time. The price of X is assumed to be ₹20.

Measurement of Consumer Surplus

No. of Units	Marginal Utility (worth T)	Price (T)	Consumer Surplus
1	30	20	10
2	28	20	8
3	26	20	6
4	24	20	4
5	22	20	2
6	20	20	0
7	18	20	–

We see from the above table that when the consumer's consumption increases from 1 to 2 units, his marginal utility falls from 30 to 28. His marginal utility goes on diminishing as he increases his consumption of good X. Since marginal utility for a unit of good indicates the price the consumer is willing to pay for that unit, and since market price is assumed to be at ₹20, the consumer enjoys a surplus on every unit of purchase till the 6'h unit. Thus, when the consumer is purchasing 1 unit of X, the marginal utility is worth BO and price fixed is ₹20, thus he is deriving a surplus of ₹10. Similarly, when he purchases 2 units of X, he enjoys a surplus of 8 (28 – 20). This continues and he enjoys consumer surplus equal to 6, 4, 2 respectively from 3rd, 4th and 5th unit. When he buys 6 units, he is in equilibrium because his marginal utility is equal to the market price or he is willing to pay a sum equal to the actual market price and therefore, he enjoys no surplus. Thus, given the price of ₹20 per unit, the total surplus which the consumer will get, is worth 10 + 8 + 6 + 4 + 2 + 0 = 30.

The concept of consumer surplus is closely related to the demand curve for a product. The demand curve reflects buyer's willingness to pay; we can also use it to measure consumer surplus. As we know, the height of the demand curve measures the value buyers place on the good as measured by their willingness to pay for it. We have already seen above that the difference between the willingness to pay and the market price is each buyer's consumer surplus. The difference between his willingness to pay and the price that he actually pays is the net gain to the consumer, the individual consumer surplus.

The total consumer surplus in a market which is the sum of all individual consumer surpluses in a market is equal to the area below the market demand curve but above the price. The term consumer surplus is often used to refer to both individual and total consumer surplus.

Thus, the total area below the demand curve and above the price is the sum of the consumer surplus of all buyers in the market.

The concept of consumer surplus can be illustrated graphically. Consider following figure. On the X-axis we measure the amount of the commodity and on the Y-axis the marginal utility and the price of the commodity. MU is the marginal utility curve which slopes downwards, indicating that as the consumer buys more units of the commodity, its marginal utility falls. Marginal utility shows the price which a person is willing to pay for the different units rather than go without them. If OP is the price that prevails in the market, then the consumer will be in equilibrium when he buys OQ units of the commodity, since at OQ units, marginal utility is equal to the given price OP. The last unit, i.e., Qth unit does not yield any consumer surplus because here price paid is equal to the marginal utility of the Qth unit. For all units before the Qth unit, the marginal utility is greater than price and thus these units fetch consumer surplus to the consumer.

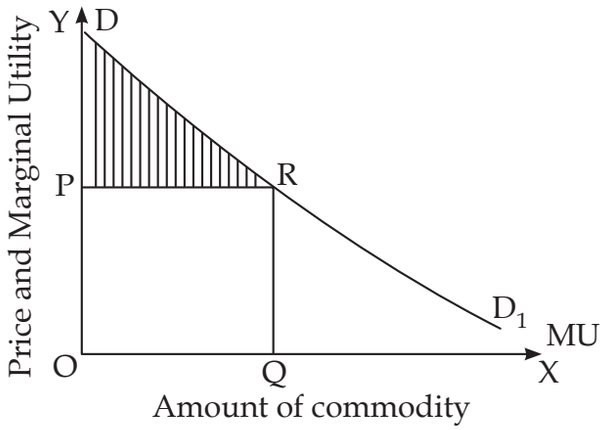


Fig. Marshall's Measure of Consumer Surplus

In the figure the total utility is equal to the area under the marginal utility curve up to point Q i.e. OPRQ. But. given the price equal to OP. the consumer actually pays OPRQ. The consumer derives extra utility equal to DPR which is nothing but consumer surplus. (The portion of demand curve RD1 is not relevant for our consumer as MU_x is less than P_x in this part and therefore, the consumer will not buy any quantity beyond Q.)

The consumer welfare derived from a good is the benefit a consumer gets from consuming that good minus what the consumer paid to buy the good. Consumer surplus is the buyer's net gain from purchasing a good. Graphically, it is the triangular area below the demand curve and above the price line. The size of the consumer surplus triangle depends on the price of the good A rise in the price of a good reduces consumer surplus; a fall in the price increases consumer surplus. Thus, a higher price results in a smaller consumer surplus and a lower price generates a larger consumer surplus. The change in consumer surplus on account of a fall in price can be illustrated with the help of the following figure.

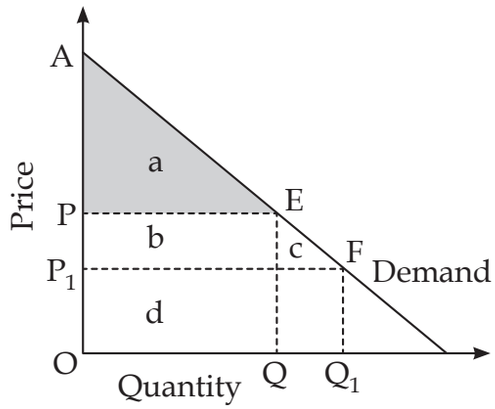


Fig.: Change in Consumer Surplus Due to a Fall in Price

A fall in price from P to P1 increases consumer surplus from APE to A PiF. The increase in consumer surplus has two components.

(a) The increase in consumer surplus of existing buyers who were earlier paying price P (the rectangle marked b).

(b) The consumer surplus now available to the new buyers who started buying the commodity due to lower prices (the triangle c)

Applications of Consumer Surplus

1. Consumer surplus is a measure of the welfare that people gain from consuming goods and services. It is very important to a business firm for reflect on the amount of consumer surplus enjoyed by different segments of their customers because consumers who perceive large surplus are more likely to repeat their purchases.
2. Understanding the nature and extent of surplus can help business managers make better decisions about setting prices. If a business can identify groups of consumers with different elasticity of demand within their market and the market segments which are willing and able to pay higher prices for the same products, then firms can profitably use price discrimination.
3. Large scale investment decisions involve cost benefit analysis which takes into account the extent of consumer surplus which the projects may fetch.
4. Knowledge of consumer surplus is also important when a firm considers raising its product prices. Customers who enjoyed only a small amount of surplus may no longer be willing to buy products at higher prices. Firms making such decisions should expect to make fewer sales if they increase prices.
5. Consumer surplus usually acts as a guide to finance ministers when they decide on the products on which taxes have to be imposed and the extent to which a commodity tax has to be raised. It is always desirable to impose taxes or increase the rates of taxes on commodities yielding high consumer surplus because the loss of welfare to citizens will be minimal.

Limitations of Consumer Surplus

1. Consumer surplus cannot be measured precisely because it is difficult to measure the marginal utilities of different units of a commodity consumed by a person.
2. In the case of necessaries, the marginal utilities of the earlier units are infinitely large. In such case the consumer surplus is always infinite.
3. The consumer surplus derived from a commodity is affected by the availability of substitutes.
4. There is no simple rule for deriving the utility scale of articles like prestige goods (e.g., diamonds).
5. Consumer surplus cannot be measured in terms of money because the marginal utility of money changes as purchases are made and the consumer's stock of money diminishes. (Marshall assumed that the marginal utility of money remains constant. But this assumption is unrealistic).
6. The concept can be accepted only if it is assumed that utility can be measured in terms of money or otherwise, many modern economists believe that this cannot be done.

Questions

1. Consumer's surplus = what the consumer is ready to pay minus _____?
   (*a*) What is actual price of the product
   (*b*) What is income of the consumer
   (*c*) What he actually pays
   (*d*) What is actual surplus

2. "Excess of the price which a consumer would be willing to pay rather than go without a thing over that which he actually does pay", is called **[JAN 2025]**

(*a*) Consumers equilibrium (*b*) Consumers surplus

(*c*) Change in demand (*d*) Change in price

3. Ram wanted to purchase an Apple tab at ₹12,000/-. Actual price in the market (MRP) is ₹11,000/- Find consumers surplus.

(*a*) 3200 (*b*) 3500 (*c*) 1000 (*d*) 3300

4. Ram wanted to purchase an Apple tab at ₹12,000/-. Actual price in the market (MRP) is ₹11,000/- and discount was given at 20%. Find consumers surplus.

(*a*) 8800 (*b*) 3500

(*c*) 1000 (*d*) None of the above

5. Ram wanted to purchase an Apple tab at ₹12,000/-. Actual price in the market (MRP) is ₹11,000/- and discount was given at 20%. Also there is an additional cash discount of 300. Find consumers surplus. **[June 2024]**

(*a*) 3200 (*b*) 3500 (*c*) 1000 (*d*) 3300

5. By consumer surplus, economists mean

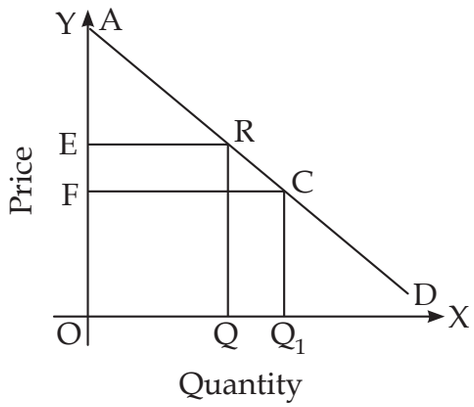
(*a*) The area inside the budget line above the price of the commodity

(*b*) The area between the average revenue and marginal revenue curves

(*c*) The difference between the maximum amount a person is willing to pay for a good and its market price

(*d*) The difference between the market price and the supply curve

7. The effect on consumer surplus of a fall in price from E to F is



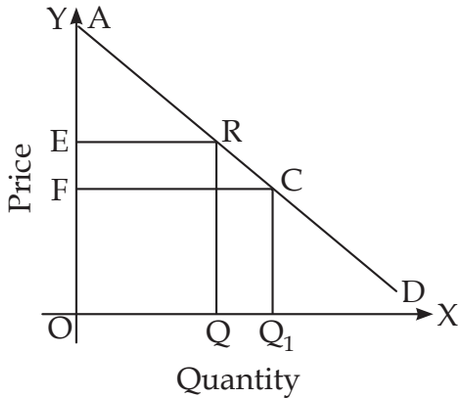
(*a*) A decrease in consumer surplus by EFGR

(*b*) A decrease in consumer surplus by AER

(*c*) A decrease in consumer surplus by EFCR

(*d*) None of the above

8. When price rises from F to E the increase in revenue earned by the seller is



(*a*) Equivalent to area EFGR

(*b*) Equivalent to area EFCR

(*c*) Equivalent to area AER

(*d*) None of the above

9. Which of the following refers to the want satisfying power of goods and services? It is not absolute but relative. It is a subjective concept and it depends upon the mental attitude of people. **[JAN 2025]**

(*a*) Utility (*b*) Want

(*c*) Elasticity of demand (*d*) None of the above

10. In which analysis can utility be measured in definite numbers such as 1, 2, 3, 4 etc. ?

(*a*) Cardinal utility analysis (*b*) Ordinal utility analysis

(*c*) Both of these (*d*) None of these

11. Who gave the cardinal concept of utility?

(*a*) Marshall (*b*) Pigou (*c*) Hicks (*d*) Samuelson

Answers

1. (*c*) **2.** (*b*) **3.** (*c*) **4.** (*d*) **5.** (*b*) **6.** (*c*) **7.** (*d*) **8.** (*a*) **9.** (*a*) **10.** (*a*) **11.** (*a*)

ORDINAL UTILITY APPROACH/ IC ANALYSIS/CONSUMER PREFERENCE APPROACH

Indifference Curve

- An indifference curve is a curve which shows all those combinations of two goods which give same satisfaction to the consumer. A consumer remains indifferent among the combinations.
- An Indifference curve is also called iso-utility curve or equal utility curve.

Properties of IC

1. Indifference curves slope downward to the right
2. Indifference curves are always convex to the origin (due to DMRS)
3. Indifference curves can never intersect each other
4. A higher indifference curve represents a higher level of satisfaction
5. Indifference curve will not touch either axis

The following are the main characteristics or properties of indifference curves

1. **Indifference curves slope downward to the right:** This properly implies that the two commodities can be substituted for each other and when the amount of one good in the combination is increased, the amount of the other good is reduced. This is essential if the level of satisfaction is to remain the same on An indifference curve.
2. **Indifference curves are always convex to the origin:** It has been observed that as more and more of one commodity (X) is substituted for another (Y), the consumer is willing to part with less and less of the commodity being substituted (i.e Y). This is called diminishing marginal rate of substitution. Thus, in our example of food and clothing, as a consumer has more and more units of food, he is prepared to forego less and less units of clothing. This happens mainly because of the want for a particular good is satiable and as a person has more and more of a good, his intensity of want for that good goes on diminishing. In other words, the subjective value attached to the additional quantity of a commodity decreases fast in relation to the other commodity whose total quantity is decreasing. This diminishing marginal rate of substitution gives convex shape to the indifference curves.

   However, there are two extreme situations:

   (i) When two goods are perfect substitutes of each other, the consumer is completely indifferent as to which to consume and is wiling to exchange one unit of X for one unit of Y. His indifference curves for these two goods are therefore straight, parallel lines with a constant slope along the curve, or the indifference curve has a constant MRS (Figure (A)].

   (ii) Goods are perfect complements when a consumer is interested in consuming these only in fixed proportions. When two goods are perfect complementary goods (e.g. left shoe and right shoe), the consumer consumes only bundles like A and B in figure in which both X and Y in equal proportions. With a bundle like A or B, he will not substitute X for Y because an extra piece of the other good (here a single shoe) is worthless for him. The reason is that neither an additional left shoe nor a right shoe without a paired one of each, adds to his total utility. In such a case, the indifference curve will consist of two straight lines with a right angle bent which is convex to the origin, or in other words, it will be L shaped. A very interesting fact about this is that in the case of perfect complements, the marginal rate of substitution is undefined because an individual's preferences do not a allow any substitution between goods.

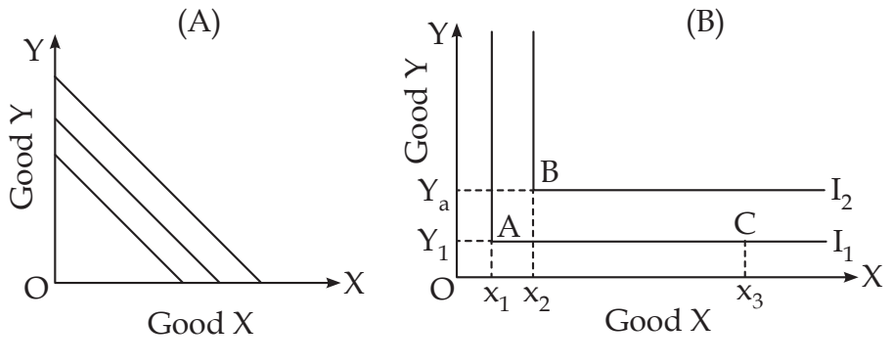


Fig.: Indifference Curve of Perfect Substitutes and perfect Complements

3. **Indifference curves can never intersect each other:** No two indifference curves will intersect each other although it is not necessary that they are parallel to each other. In case of intersection the relationship becomes logically absurd because it would show that higher and lower levels are equal, which is not possible. This property will be clear from Figure.

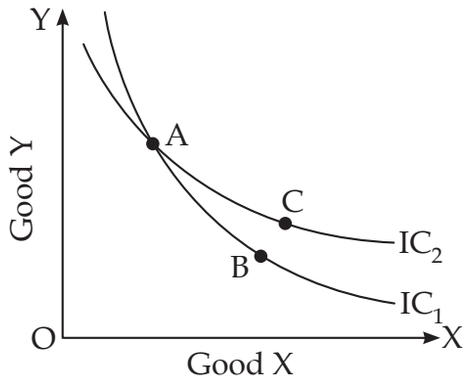
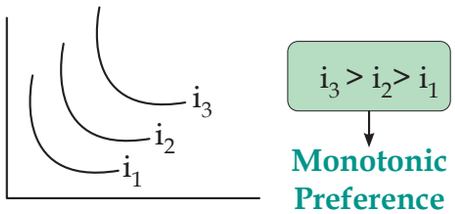


Fig.: Intersecting Indifference Curves

In figure, IC_1 and IC_2 intersect at A. Since A and B lie on IC_1 they give same satisfaction to the consumer. Similarly since A and C lie on IC_2, they give same satisfaction to the consumer This implies that combination B and C are equal in terms of satisfaction. But a glance will show that this is an absurd conclusion because certainly combination C is better than combination B because it contains more units of commodities X and Y. Thus we see that no two indifference curves can touch or cut each other.

4. **A higher indifference curve represents a higher level of satisfaction than the lower indifference curve:** This is because combinations lying on a higher indifference curve contain more of either one or both goods and more goods are preferred to less of them.



5. **Indifference curve will not touch either axes:** Another characteristic feature of indifference curve is that it will not touch the X axis or Y axis. This is born out of our assumption that the consumer is considering different combination of two commodities. If an indifference curve touches the Y axis at a point P as shown in the figure 22, it means that the consumer is satisfied with OP units of Y commodity and zero units of X commodity. This is contrary to our assumption that the consumer wants both commodities although in smaller or larger quantities. Therefore an indifference curve will not touch either the X axis or Y axis.

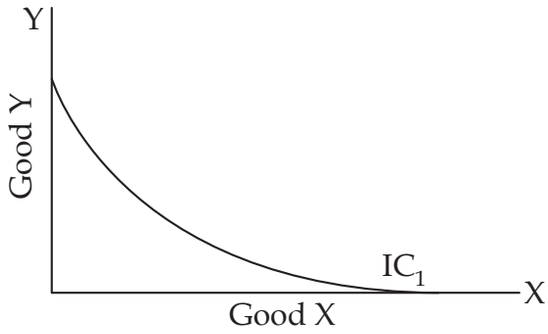
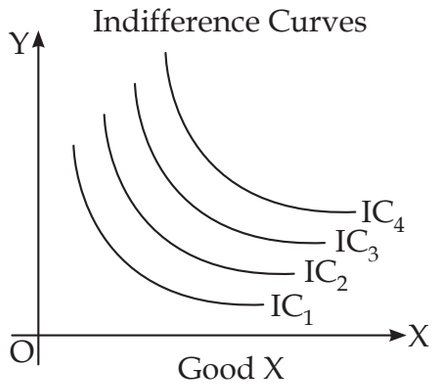


Fig.: Impossible Indifference Curve

Indifference Map

Indifference map collectionset of many indifference curves in a single diagram. (family of indifference curves)



Assumptions Underlying the Indifference Curve Approach

1. The foundation of consumer behaviour theory is the assumption that the consumer knows his own tastes and preferences and possesses full information about all the relevant aspects of economic environment in which he lives.
2. The consumer is rational and tends to take rational actions that result in a more preferred consumption bundle over a less preferred bundle.
3. The indifference curve analysis assumes that utility is only ordinally expressible.
4. Consumer choices are assumed to be transitive.
5. If combination A has more commodities than combination B, then A must be preferred to B. This is sometimes referred to as the "more is better" assumption or the assumption of non-satiation. This is called monotonic preferences.

The Budget Line

- A budget line or price line shows all the combinations of two goods which the consumer can buy by spending his given money income on the two goods at their given prices.
- All those combinations/ bundles which are within the reach of the consumer (assuming that he spends all his money income) will lie on the budget line.
- Algebraically, we can write the budget constraint for two goods X and Y as:

$$P_xQ_x + P_yQ_y \leq B$$

Where, P_x and P_y are the prices of goods X and Y and Q_x and Q_y are the quantities of goods X and Y chosen and B is the total money available to the consumer.

We assume that the consumer in our analysis uses up his entire nominal money income to purchase the commodities. So that his budget constraint is

$$P_xQ_x + P_yQ_y = B$$

The following table shows the combinations of Ice cream and chocolates a consumer can buy spending the entire fixed money income of ₹100, with the prices ₹20 and ₹10 respectively.

Consumption Possibilities

	Ice Cream	Chocolate
A	0	10
B	1	8
c	2	6
D	3	4
E	4	2
F	5	0

The budget constraint can be explained by the budget line or price line. In simple words, a budget line shows all those combinations of two goods which the consumer can buy spending his given money income on the two goods at their given prices. All those combinations which are within the reach of the consumer (assuming that he spends all his money income) will lie on the budget line. The consumer could, of course, buy any bundle that cost less than ₹100.(e.g. Point K)

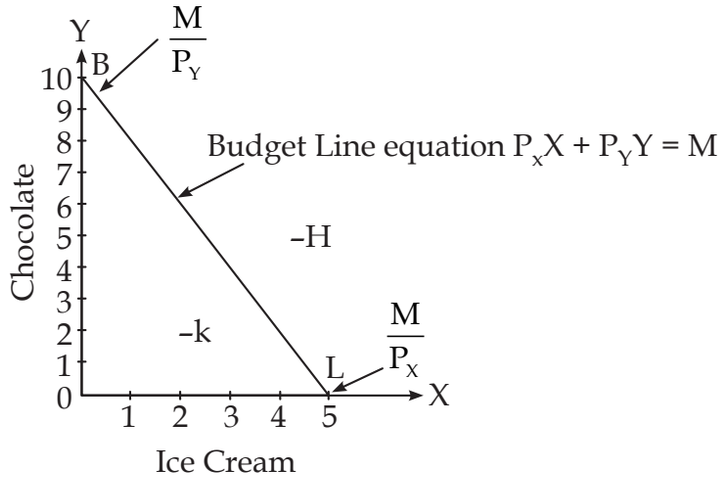


Fig.: Price Line or the Budget Line

It should be noted that any point outside the given price line, say H, will be beyond the reach of the consumer and any combination lying within the line, say K, shows under spending by the consumer.

The slope of the budget line is determined by the relative prices of the two goods. It is equal to Price Ratio' of two goods i.e. P_x/P_y i.e. It measures the rate at which the consumer can trade one good for the other.

The budget line will shift when there is

- A change in the prices of one or both products.
- A change in the level of nominal income of the consumer.
- A change in both income and relative prices.

Consumer Equilibrium

A consumer is in equilibrium when he is deriving maximum possible satisfaction from the goods and therefore is in no position to rearrange his purchases of goods.

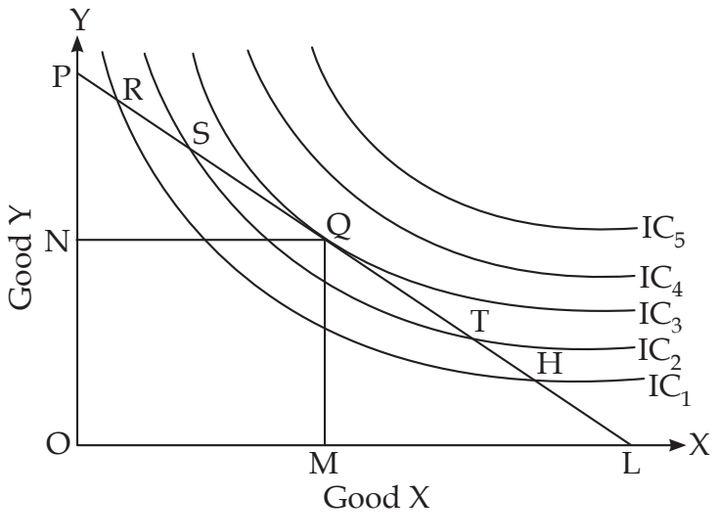
Assumptions of consumer equilibrium through the indifference curve approach:

1. The consumer has a given indifference map which shows his scale of preferences for various combinations of two goods X and Y.
2. He has a fixed money income which he has to spend wholly on goods X and Y.
3. Prices of goods X and Y are given and are fixed.
4. All goods are homogeneous and divisible, and
5. The consumer acts 'rationally' and maximises his satisfaction.

A consumer's optimal choice or consumer's equilibrium should satisfy two criteria:

- It will be a point on his budget line; and
- It will lie on the highest indifference curve possible

Consumer equilibrium is explained through following diagram–



To show which combination of two goods X and Y the consumer will buy to be in equilibrium. (we bring his indifference map and budget line together.)

We know by now, that the indifference map depicts the consumer's preference scale between various combinations of two goods and the budget line shows various combinations which he can afford to buy with his given money income and prices of the two goods. Consider Figure 24, in which IC_1, IC_2, IC_3, IC_4 and IC_5 are shown together with budget line PL for good X and good Y. Every combination on the budget line PL costs the same. Thus combinations R, S, Q, T and H cost the same to the consumer. The consumer's aim is to maximise his satisfaction and for this, he will try to reach the highest indifference curve.

The consumer can arrive this choice moving down his budget line starting from point R. While doing this, he will pass through a variety of indifference curves (To make the diagram simple,

we have drawn only a few). Suppose he chooses R. We see that R lies on a lower indifference curve IC_1 when he can very well afford S, Q or T lying on higher indifference curves. Similar is the case for other combinations on IC_1 like H. Again, suppose he chooses combination S (or T) lying on IC_2. But here again we see that the consumer can still reach a higher level of satisfaction remaining within his budget constraints i.e., he can afford to have combination Q lying on IC3 because it lies on his budget line. Now, what if he chooses combination Q? We find that this is the best choice because this combination lies not only on his budget line but also puts him on the highest possible indifference curve i.e., IC3. The consumer can very well wish to reach IC_4 or IC_5, but these indifference curves are beyond his reach given his money income. Thus, the consumer will be at equilibrium at point Q on IC_3. What do we notice at point Q? We notice that at this point, his budget line PL is tangent to the indifference curve IC_3. In this equilibrium position (at Q), the consumer will buy OM of X and ON of Y. At the tangency point Q, the slopes of the price line PL and the indifference curve IC_3 are equal. The slope of the indifference curve shows the marginal rate of substitution of X for Y MU (MRSxy) which is equal to $\frac{MU_X}{MU_Y}$ while the slope of the price line indicates the ratio between the prices of two goods i.e., $\frac{P_X}{P_Y}$

At equilibrium point Q.

$$MRS_{xy} = \frac{MU_X}{MU_Y} = \frac{P_X}{P_Y}$$

Thus, we can say that the consumer is in equilibrium position when the price line is tangent to the indifference curve or when the marginal rate of substitution of goods X and Y is equal to the ratio between the prices of the two goods.

We have seen that the consumer attains equilibrium at the point where the budget line is tangent to the indifference curve and

$$= \frac{MU_X}{P_X} = \frac{MU_Y}{P_Y}$$

In fact, the slope of the indifference curve points to the rate at which the consumer is willing to give up good Y for good X. The slope of the budget line tells us the rate at which the consumer is actually able to trade good X and good Y. When both these are equal, he will be maximising his satisfaction given the constraints.

The indifference curve analysis is superior to cardinal utility analysis because:

(i) it dispenses with the assumption of measurability of utility
(ii) it studies more than one commodity at a time
(iii) it does not assume constancy of marginal utility of money
(iv) it segregates income effect from substitution effect

Questions

1. With respect to the properties of indifference curve which of the following statements is false? **[Sept. 2024]**

(*a*) Higher indifference curve represents higher level of satisfaction

(*b*) Indifference curve is negatively sloped line

(*c*) Intersecting point of two indifference curves represents highest level of satisfaction

(*d*) An indifference curve is convex to the origin

2. Which of the following is not the property of indifference curve?

(*a*) Slopes downwards to the right (*b*) Always convex to the origin

(*c*) Intersects each other (*d*) Will not touch either of the axes

3. Which one of the following statements is incorrect about Indifference Curve?

(*a*) Always Convex to the origin

(*b*) Never intersects each other

(*c*) Higher Curve represents higher level of satisfaction

(*d*) It may touch X axis but never Y axis

4. When the consumer has more and more unit of food, he is prepared to give up less and less units of clothing. It is due to _____.

(*a*) Falling MRS (*b*) Rising MRS

(*c*) Constant MRS (*d*) None of the above

5. The Slope of Indifference curve is _____.

(*a*) Marginal Rate of Substitution (*b*) Minimal Rate of Substitution

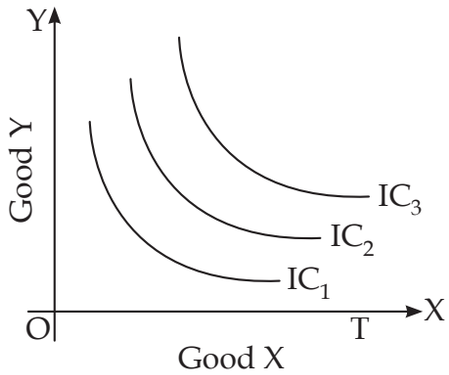
(*c*) Average Rate of Substitution (*d*) Total Rate of Substitution

6. Indifference curve is L shaped then two goods will be: **[CA CPT May 2019, Nov. 2020]**

(*a*) Perfect substitute goods (*b*) Substitute goods

(*c*) Perfect complementary goods (*d*) Complementary goods

7. With reference to the following indifference map, which of the following curve represents highest satisfaction level? **[JAN 2025]**



(*a*) IC_3

(*b*) IC_2

(*c*) IC_1

(*d*) All the curves represent the same satisfaction level

8. A relative price is

(*a*) Price expressed in terms of money

(*b*) What you get paid for babysitting your cousin

(*c*) The ratio of one money price to another

(*d*) Equal to a money price

9. A point below the budget line of a consumer

(*a*) Represents a combination of goods which costs the whole of consumer's income

(*b*) Represents a combination of goods which costs less than the consumer's income

(*c*) Represents a combination of goods which is unattainable to the consumer given his/her money income

(*d*) Represents a combination of goods which costs more than the consumers' income

10. How would that budget line be affected if the price of both goods fell?

(*a*) The budget line would not shift

(*b*) The new budget line must be parallel to the old budget line

(*c*) The budget line must be shifting to the left

(*d*) The new budget line will have the same slope as the original so long as the prices of both goods change in the same proportion

11. The figure below shows the budget constraint of a consumer with an income of ₹900/- to spend on two commodities, namely ice cream and chocolates.

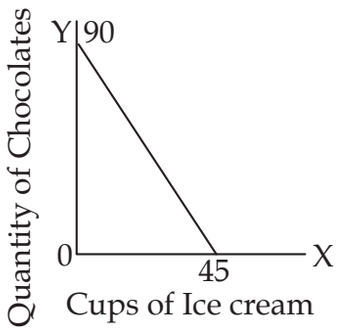
The prices of these two commodities respectively are:

(*a*) ₹10 and ₹20

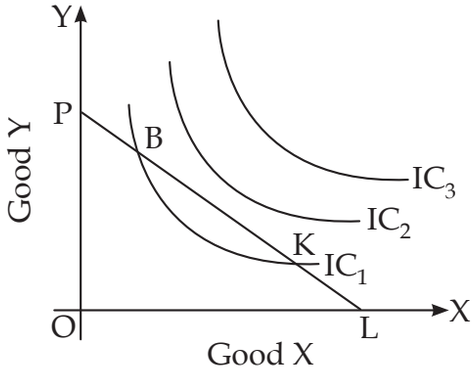
(*b*) ₹20 and ₹10

(*c*) ₹10 and ₹5

(*d*) Any of the above



12. If the consumer is spending her entire income and consuming at point B, what advice will you give her?



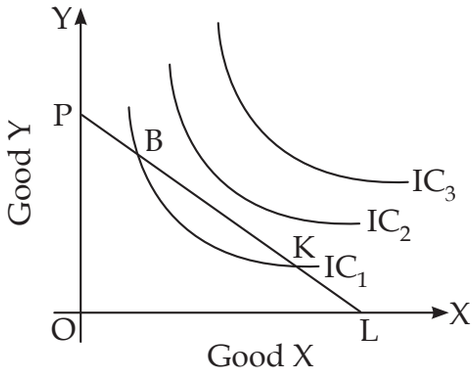
(*a*) No advice needed, as she is maximising her utility at B

(*b*) Consume more of Good X and less of Good Y

(*c*) Consume more of X and less of Y and reach point K

(*d*) Consume same quantity of Good Y and more of Good X

13. Which of the following statements is true about this consumer?



(*a*) The consumer is not maximising her utility at point K

(*b*) The consumer is spending her entire income on both goods

(*c*) The consumer gets equal pleasure at points B and K

(*d*) All the above

Answers

1. (*c*) **2.** (*c*) **3.** (*d*) **4.** (*a*) **5.** (*a*) **6.** (*c*) **7.** (*a*) **8.** (*c*) **9.** (*b*) **10.** (*d*)
11. (*b*) **12.** (*b*) **13.** (*d*)

UNIT-3: SUPPLY

MEANING OF SUPPLY

- Supply is not sale.
- 'Supply' refers to amount/quantity of a commodity that producers are willing and able to offer for sale at various prices during a given period of time.

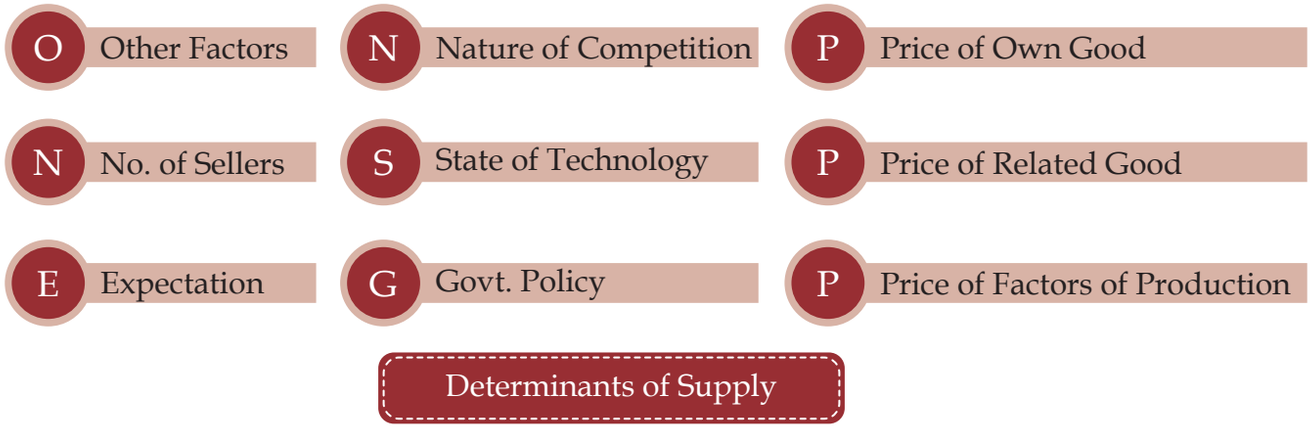
QUANTITY SUPPLIED

- 'Quantity Supplied' refers to amount/quantity of a commodity that producers are willing and able to offer for sale at a particular price during a given period of time. It is a flow concept.

DETERMINANTS OF SUPPLY

1. **Price of the Good:** Other things being equal, the higher the relative price of a good the greater the quantity of it that will be supplied. This is because goods and services are produced by the firm in order to earn profits and, ceteris paribus, profits rise if the price of its products rises.
2. **Price of Related Goods:** An increase in price of one good leads to decrease in supply of other goods. If a farmer produces and sells wheat and mushroom. If price of wheat rises, farmer may shift his land to wheat production away from mushroom (decreasing supply of mushroom).
3. **Prices of Factors of Production:** The supply of a commodity also depends on the price of its factor inputs like land, labour, capital etc. An increase in price of factor inputs leads to increase in the production cost and decreases the profit margin. Therefore, supply decreases, similarly, as price of factor input decreases, then supply increases.
4. **State of Technology:** An efficient or advanced or cost-saving technology of production leads to decrease in production cost and raises profit margin. Therefore, supply increases, similarly, inefficient technology leads to decrease in supply of the commodity.
5. **Government Policy:** An increase in tax on production leads to increase in production cost. Similarly, a decrease in tax on production leads to increase in supply of the commodity. On the other hand, there is positive relationship between supply of a good and subsidies given by government.
   - Restrictions made by govt like import quota or rationing on inputs leads to fall in production and thereby supply decrease
6. **Nature of Competition and Size of Industry:** Under competitive conditions, supply will be more than that under monopolised conditions.
   - No. of sellers rise → Competition increases → More supply and vice versa.
7. **Expectations:** An increase in anticipated future price → reduces its supply today/current.
8. **Number of Sellers:** An increase in number of firms raises the market supply of the good and decrease in number of firms, reduces the market supply.
9. **Other factors:**
   - Government's industrial and foreign policies
   - goals of the firm
   - infrastructural facilities
   - natural factors → weather, floods, earthquakes
   - man-made factors → war, labour strikes, communal riots etc.

Short Learning Trick



LAW OF SUPPLY

This law states that, if other things remaining Constant, there is positive relationship between price of the own good and its quality supplied.

It means that as price rises, supply also rises and vice versa.

The law of supply can be explained through following table

Price (in ₹)	Quantity Supplied (in units)
10	100
20	200
30	300

As shown in above table, as price rises from ₹10, ₹20 to ₹30 quantity supplied rises from 100, 200 to 300 units respectively.

- The law of supply is known to be correct in a large number of cases. **There is an exception however.** If we take the supply of labour at very high wages, we may find that the supply of labour has decreased instead of increasing. Thus, the behaviour of supply depends upon the phenomenon considered and the degree of possible adjustment in supply.
- The law of supply can be stated as: Other things remaining constant, the quantity of a good produced and offered for sale will increase as the price of the good rises and decrease as the price falls.
- This law is based upon common sense, because the higher the price of the good, the greater the profits that can be earned and thus greater the incentive to produce the good and offer it for sale. The law is known to be correct in a large number of cases. There is an exception however. If we take the supply of labour at very high wages, we may find that the supply of labour has decreased instead of increasing. Thus, the behaviour of supply depends upon the phenomenon considered and the degree of possible adjustment in supply.
- The behaviour of supply is also affected by the time period under consideration. In the short run, it may not be easy to increase supply, but in the long run supply can be easily adjusted in response to changes in price.
- In Figure, price is plotted on the vertical axis and quantity on the horizontal axis, and various price-quantity combinations of the schedule 10 are plotted.

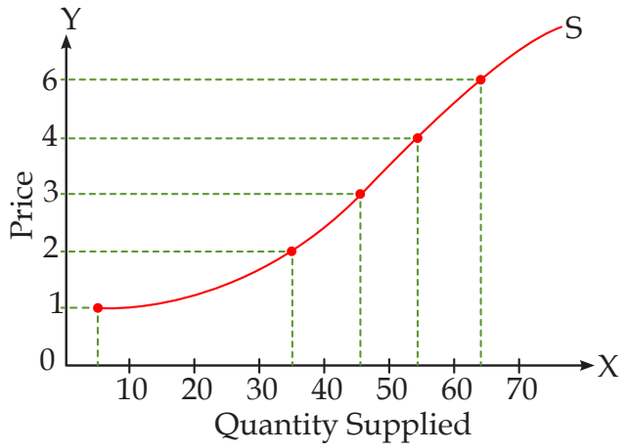


Fig.: Supply Curve

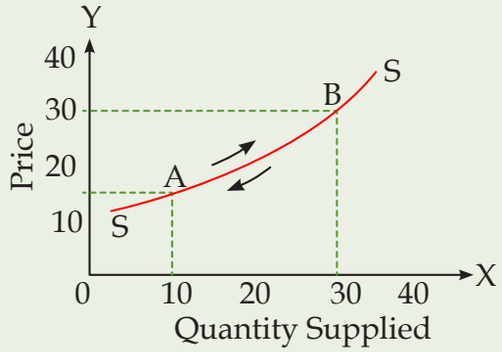
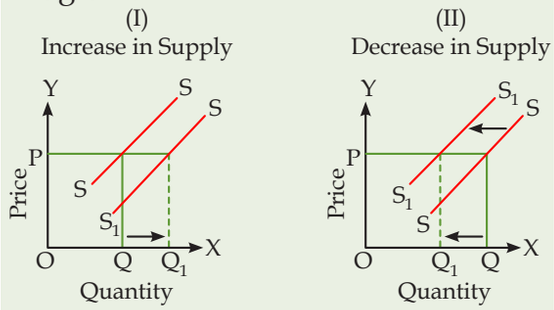
When we draw a smooth curve through the plotted points, what we get is the supply curve of good X. The supply curve is a graphical presentation of the supply schedule. The supply curve shows the quantity of a good that producers are willing to sell at a given price, holding constant any other factor that might affect the quantity supplied. The supply curve is thus a relationship between the quantity supplied and the price. To be more precise, the supply curve shows simultaneously:

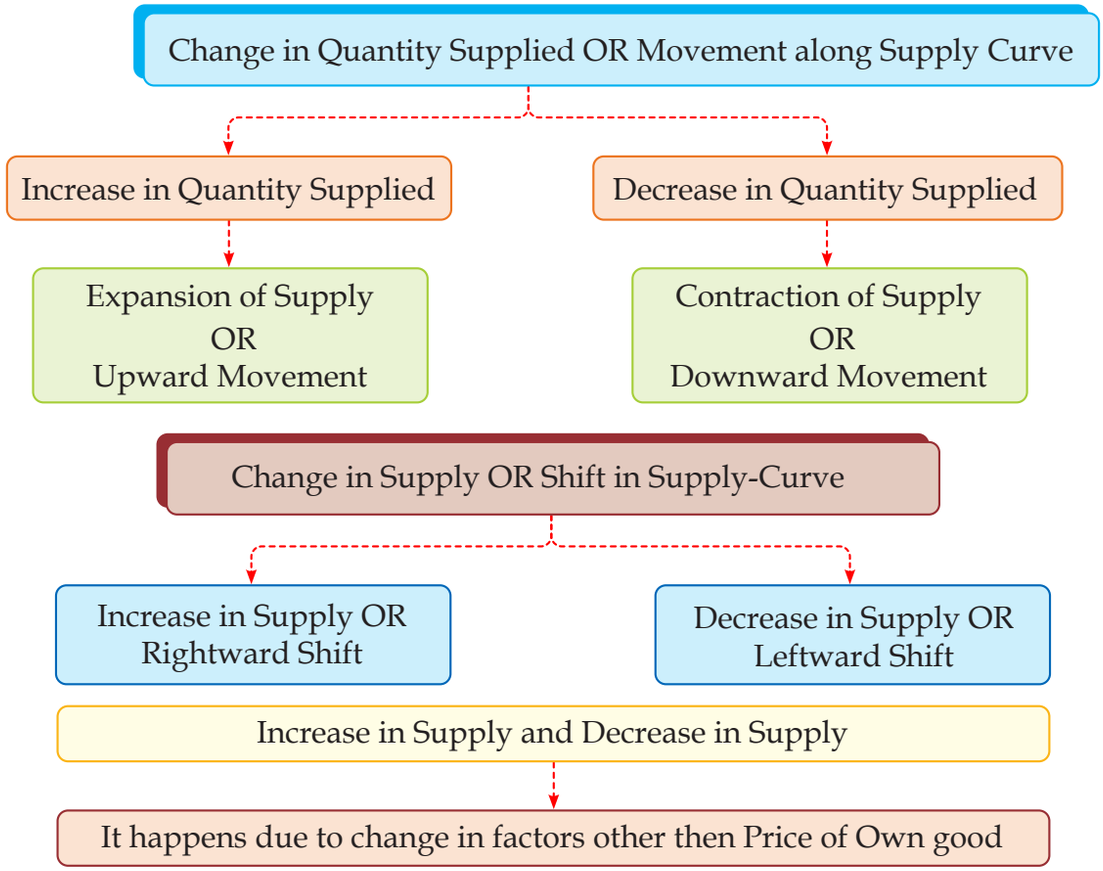
(a) the highest quantity willingly supplied by the suppliers at each price and

(b) the minimum price which will induce suppliers to offer the various quantities for sale

The supply curve slopes upwards towards right (positive slope) showing that as price increases, the quantity supplied of X increases and vice-versa. This direct relationship between price and quantity is reflected in the positive slope of the supply curve.

CHANGE IN QUANTITY SUPPLIED VS CHANGE IN SUPPLY

	Change in Quantity Supplied	vs	Change in Supply
1.	It is a situation where supply rises or falls due to change in price of own good	**1.**	It is a situation where supply increases or decreases due to change in the factors other than price of own good.
2.	It causes due to change in price of own good only.	**2.**	It causes due to change in price of factors inputs, change in No. of firms, technological progress etc.
3.	It is also called "Movement along supply curve.	**3.**	It is also called "Shift in supply-curve"
4.	Diagram: 	**4.**	Diagram:  Shifts in Supply Curves **Fig.:** Shifts in Supply Curves



Questions

1. An increase in the number of sellers of bikes will increase the

(*a*) The price of a bike (*b*) Demand for bikes

(*c*) The supply of bikes (*d*) Demand for helmets

2. In the book market, the supply of books will decrease if any of the following occurs except

(*a*) A decrease in the number of book publishers

(*b*) A decrease in the price of the book

(*c*) An increase in the future expected price of the book

(*d*) An increase in the price of paper used

3. The quantity supplied of a good or service is the amount that

(*a*) Is actually bought during a given time period at a given price

(*b*) Producers wish they could sell at a higher price

(*c*) Producers plan to sell during a given time period at a given price

(*d*) People are willing to buy during a given time period at a given price

4. Supply is the

(*a*) Limited resources that are available to the seller

(*b*) Cost of producing a good

(*c*) Entire relationship between the quantity supplied and the price of good

(*d*) Willingness to produce a good if the technology to produce it becomes available

5. Supply is a _____ concept.

(*a*) Stock (*b*) Flow and Stock

(*c*) Flow (*d*) None of the above

6. When supply curve moves to right, it means

(*a*) Supply increases and more quantity is supplied at a given price

(*b*) Supply decreases and less quantity is supplied at a given price

(*c*) Supply remains constant at a given price

(*d*) None of the above

Price elasticity of supply → **Responsiveness of quantity supplied** of a good **to a change in its price**.

7. The elasticity of supply is defined as the

(*a*) Responsiveness of the quantity supplied of a good to a change in its price

(*b*) Responsiveness of the quantity supplied of a good without change in its price

(*c*) Responsiveness of the quantity demanded of a good to a change in its price

(*d*) Responsiveness of the quantity demanded of a good without change in its price

Answers

1. (*c*) **2.** (*b*) **3.** (*c*) **4.** (*c*) **5.** (*c*) **6.** (*a*) **7.** (*a*)

ELASTICITY OF SUPPLY

The elasticity of supply is defined as the responsiveness of the quantity supplied of a good to a change in its price. Elasticity of supply is measured by dividing the percentage change in quantity supplied of a good by the percentage change in its price i.e.,

$$E_S = \frac{\text{Percentage change in quantity supplied}}{\text{Percentage change in price}}$$

Or, $$\frac{\dfrac{\text{Change in quantity supplied}}{\text{quantity supplied}}}{\dfrac{\text{Change in price}}{\text{Price}}}$$

Or, $$\frac{\Delta\frac{q}{q}}{\Delta\frac{p}{p}} = \frac{q}{p} \times \frac{p}{p}$$

Where, q denotes original quantity supplied.

Δq denotes change in quantity supplied.

p denotes original price.

Δp denotes change in price.

Example:

1. Suppose the price of commodity X increases from ₹2,000 per unit to ₹2,100 per unit and consequently the quantity supplied rises from 2,500 units to 3,000 units. Calculate the elasticity of supply.

   Here, $\Delta q = 500$ units $\quad \Delta p = ₹100$

   $p = ₹2000 \quad q = 2500$ units

   $\therefore E_s = \frac{500}{100} \times \frac{2000}{2500} = 4$

   Elasticity of Supply = 4.

TYPES OF SUPPLY ELASTICITY

The elasticity of supply can be classified as under:

1. **Perfectly Inelastic Supply:** If as a result of a change in price, the quantity supplied of a good remains unchanged, we say that the elasticity of supply is zero or the good has perfectly inelastic supply ($E_s = 0$). The vertical supply curve in Figure 28 shows that irrespective of price change, the quantity supplied remains unchanged. In other words, the quantity supplied is unaffected by any change in price. As the elasticity rises, the supply curve gets flatter, which shows that the quantity supplied responds more to changes in price.

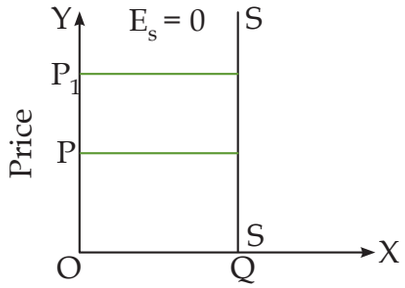


Fig.: Supply Curve of Zero Elasticity

2. **Relatively Less-elastic Supply:** If as a result of a change in the price of a good its supply changes less than proportionately, we say that the supply of the good is relatively less elastic or elasticity of supply is less than one. In this case, the coefficient of elasticity falls in the range $0 < E_s < 1$. The percentage change in quantity is less than the percentage change in price. In other words, the quantity is not very responsive to price. Figure shows that the relative change in the quantity supplied (ΔQ) is less than the relative change in the price (ΔP).

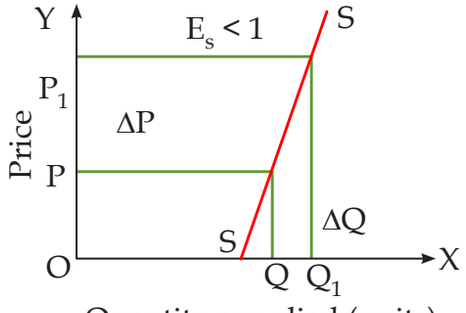


Fig.: Showing Relatively Less Elastic Supply

3. **Relatively Greater-elastic Supply:** lf elasticity of supply is greater than one i.e., when the quantity supplied of a good changes substantially in response to a small change in the price of the good we say that supply is relatively elastic. The percentage change in quantity is greater than the percentage change in price. The coefficient of elasticity falls in the range $1 < E < \infty$. Figure, shows that the relative change in the quantity supplied (ΔQ) is greater than the relative change in the price.

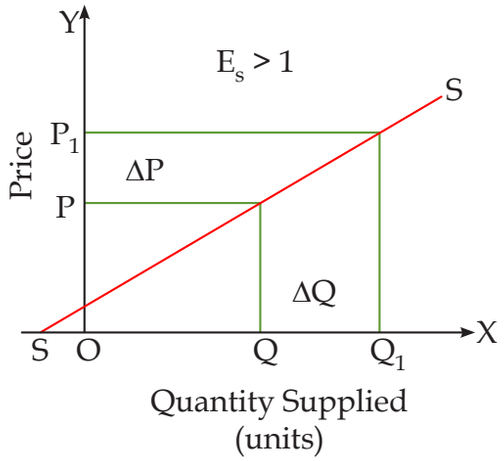


Fig.: Showing Relatively Greater Elastic Supply

4. **Unit-elastic:** In this case, the coefficient of elasticity is one. ($E_s = 1$). If the relative change in the quantity supplied is exactly equal to the relative change in the price, the supply is said to be unitary elastic. The percentage change in quantity is equal to the percentage change in price. Unit elasticity is essentially a dividing line or boundary between the elastic and inelastic ranges. In Figures, the relative change in the quantity supplied (ΔQ) is equal to the relative change in the price (ΔP).

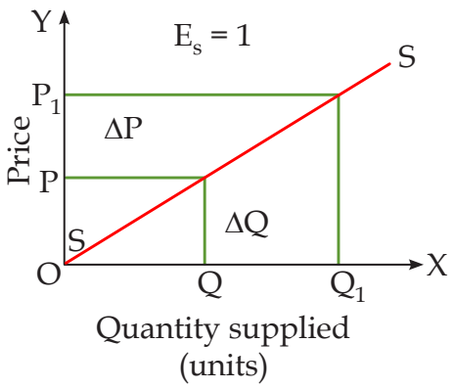


Fig.: Showing Unitary Elasticity

5. **Perfectly elastic supply:** At the opposite extreme of zero elasticity supply is perfectly elastic. This occurs as the price elasticity of supply approaches infinity and the supply curve becomes horizontal. Elasticity of supply is said to be infinite ($E = \infty$) or perfectly elastic when nothing is supplied at a lower price and an infinitesimally small change in price results in an infinitely large change in quantity supplied indicating that producers will supply any quantity demanded at that price. Figure shows infinitely elastic supply.

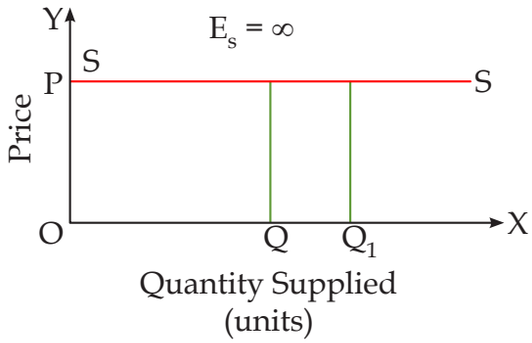


Fig.: Supply Curve of Infinite Elasticity

The elasticity of supply can be considered with reference to a given point on the supply curve or between two points on the supply curve. When elasticity is measured at a given point on the supply curve, it is called point elasticity. Just as in demand, point-elasticity of supply can be measured with the help of the following formula:

$$E_s = \frac{dp}{dp} \times \frac{p}{q}$$

E_s: The Supply function is given as q = -100 + 10p. Find the elasticity of supply using point method, when price is ₹15.

$$E_s = \frac{dq}{dp} \times \frac{p}{q}$$

Since, $\frac{dq}{dp} = 10$, p = ₹15, q = –100 + 10(15)

q = 50

$\therefore E_S = 10 \times \frac{15}{50}$

or, $E_s = 3$

Where, $\frac{dq}{dp}$ is differentiation of the supply function with respect to price and p and q refer to price and quantity respectively.

Arc-Elasticity: Arc-elasticity i.e., elasticity of supply between two prices can be found out with the help of the following formula:

$$E_S = \frac{Q_2 - Q_1}{Q_2 + Q_1} \times \frac{P_2 + P_1}{P_2 - P_1}$$

Where P_1 & Q_1 are original price and quantity and P_2 & Q_2 are new price and quantity supplied. Thus, if we have to find elasticity of supply when P_1= ₹12, P_2 = ₹15, Q_1 = 20 units and Q_2= 50 units.

Then using the above formula, we will get supply elasticity as:

$$E_S = \frac{50 - 20}{50 + 20} \times \frac{15 + 12}{15 - 12}$$

$$= \frac{30}{70} \times \frac{27}{3} = +3.85$$

DETERMINANTS OF ELASTICITY OF SUPPLY

1.	If Increase in Production substantial cost increase then it will leads to decrease in Profit and then supply cannot be increased easily	Inelastic Supply
	If Increase in Production leads to negligible rise in cost or constant cost then supply can be changed easily	Elastic Supply
	Complex production process require long process time to produce (Eg- aircraft, cruise ship) then supply cannot be increased easily	Inelastic Supply
2.	If after increase in price → short time period does not allow to increase production immediately.	Inelastic Supply
	If after increase in price → Long time period allows to build new plants or new firms	Elastic Supply
3.	More no. of sellers leads to → More competition and Fewer barriers to entry so supply can be changed easily	Elastic Supply
4.	If firm is Not working on full capacity more i.e. spare capacity then supply cant be increased easily	
5.	If Key raw material is easily and cheaply available then supply can be changed easily	Elastic Supply
	If Procuring resources is difficult or costly then supply cannot be increased easily	Inelastic Supply
6.	If Raw material and finished goods can be easily and cheaply stored in adequate stock then supply can be changed easily	Elastic Supply
7.	Sellers expect → rise in future price	Inelastic Supply
8.	If Inputs are Short in supply then it will require longer delivery period because they are highly specialised nature. So it does not allow to increase production immediately.	Inelastic Supply
9.	If Labour is highly skilled and scarce then it will require longer training period. So it does not allow to increase production immediately.	Inelastic Supply
10.	If Capital and labour are occupationally mobile then supply can be changed easily	Elastic Supply
	If Products are continuously produced then supply can be changed easily	
	If Products are infrequently produced then it does not allow to increase production immediately.	Inelastic Supply

Questions

1. Highly Perishable commodities during very short period will have _____.

(*a*) Perfectly elastic curve

(*b*) Perfectly inelastic curve

(*c*) Elastic

(*d*) Inelastic

2. 'Ceteris Paribus' is a Latin phrase that generally means: **[Jan. 2025]**

(*a*) All other things being equal (*b*) An inverse relationship

(*c*) Income of consumers (*d*) Tastes and preferences of consumers

3. If the price of Wheat increases from ₹1,800 per Quintal to ₹2,200 per Quintal and consequently the quantity supplied rises from ₹2,000 Quintal to ₹3,200 Quintal. Calculate the elasticity of supply. **[Jan. 2025]**

(*a*) +0.7 (*b*) +1.7 (*c*) +2.7 (*d*) +3.7

4. In case of perfectly elastic supply: **[Jan. 2025]**

(*a*) $E_s > 1$ (*b*) $E_s = 1$ (*c*) $E_s = 0$ (*d*) $E_s = \infty$

5. The Supply function is given as q = 120 + 6p. Find the elasticity of supply, when price is ₹10 **[Jan 2025]**

(*a*) +1/3 (*b*) +2/3 (*c*) –2/3 (*d*) +3/4

6. If the demand is more than supply, then the pressure on price will be

(*a*) Upward (*b*) Downward

(*c*) Constant (*d*) None of the above

7. If a short run supply curve is plotted for the following table which presents price and quantity of fighter aircrafts, what will be its shape?

Price in millions of $	Number of Aircrafts
124	28
140	28
150	28
160	28
175	28

(*a*) Horizontal straight line parallel to the quantity axis

(*b*) Steeply rising with elasticity less than one

(*c*) Vertical straight line parallel to Y axis

(*d*) A perfectly elastic supply curve

8. If the quantity supplied is exactly equal to the relative change in price then then elasticity of supply is

(*a*) Less than one (*b*) Greater than one (*c*) One (d None of the above

9. The market demand curve for a perfectly competitive industry is: Qd = 12 – 2P and the market supply curve is: Qs = 3 + P. The market will be in equilibrium if **[MTP April 2025]**

(*a*) P = 6 and Q = 9 (*b*) P = 5 and Q = 2

(*c*) P = 4 and Q = 4 (*d*) P = 3 and Q = 6

Answers

1. (*a*) **2.** (*a*) **3.** (*c*) **4.** (*d*) **5.** (*a*) **6.** (*a*) **7.** (*c*) **8.** (*c*) **9.** (*d*)

EQUILIBRIUM PRICE

The equilibrium price in a market is determined by the intersection between demand and supply. It is also called the market equilibrium. At this price, the amount that the buyers wants to buy is equal to the amount that sellers want to sell. The competitive market equilibrium represents the 'unique' point at which both consumers and suppliers are satisfied with price and quantity. Equilibrium price is also called market clearing price.

The determination of market price is the central theme of micro economic analysis. Hence, microeconomics theory is also called price theory.

The following table presents the concept of the equilibrium price.

Supply and Demand Schedule

Price (₹)	Quantity Demanded	Quantity Supplied	Impact on Price
5	6	31	Downward
4	12	25	Downward
3	19	19	Equilibrium
2	25	12	Upward
1	31	6	Upward

The equilibrium between demand and supply is depicted in the diagram below. Demand and supply are in equilibrium at point E where the two curves intersect each other. It means that only at price ₹3 the quantity demanded is equal to the quantity supplied. The equilibrium quantity is 19 units and these are exchanged at price ₹3. If the price is more than the equilibrium level, excess supply will push the price downwards as there are few takers in the market at this price. For example, in Table 11, if price is say ₹5, quantity demanded is 6 units which is quite less than the quantity supplied (31 units). There will be excess supply in the market which will force the sellers to reduce price if they want to sell off their product. Hence the price will fall and continue falling till it reaches the level where the quantity demanded becomes equal to the quantity supplied. Opposite will happen when quantity demanded is more than the quantity supplied at particular price.

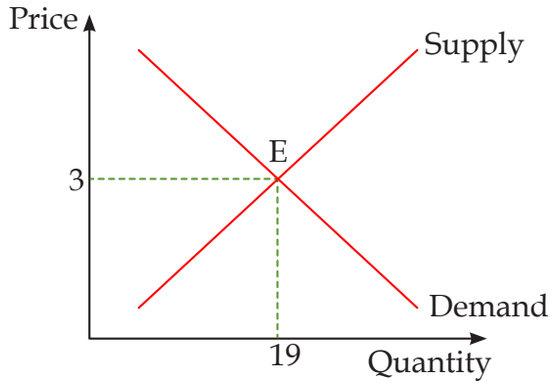
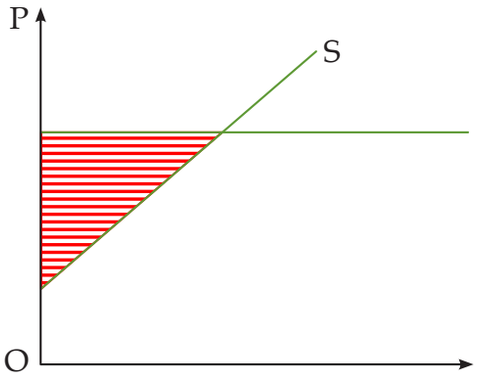


Fig.: Equilibrium Price

SOCIAL EFFICIENCY

- **Social efficiency** represents a situation where **net gains to society** (CS + PS) is maximum.
- **Consumer surplus (CS)** → measure of consumer welfare.
  - It is represented by area below demand curve and above price line.

- **Producer surplus (PS)** → benefit derived by producers from the sale of a unit above and beyond their cost of producing that unit.
  - This occurs when the price they receive is more than the minimum price at which they would be prepared to supply.
  - It is represented by area above supply curve and below price line.



Social efficiency represents the net gains to society from all exchanges that are made in a particular market. It consists of two components: consumer surplus and producer surplus. We have already learned that consumer surplus is a measure of consumer welfare. There is welfare gain to producers as well when they participate in the market, namely producer surplus. Producer surplus is the benefit derived by producers from the sale of a unit above and beyond their cost of producing that unit. This occurs when the price they receive in the market is more than the minimum price at which they would be prepared to supply. It is represented by the area above the supply curve and below the price line

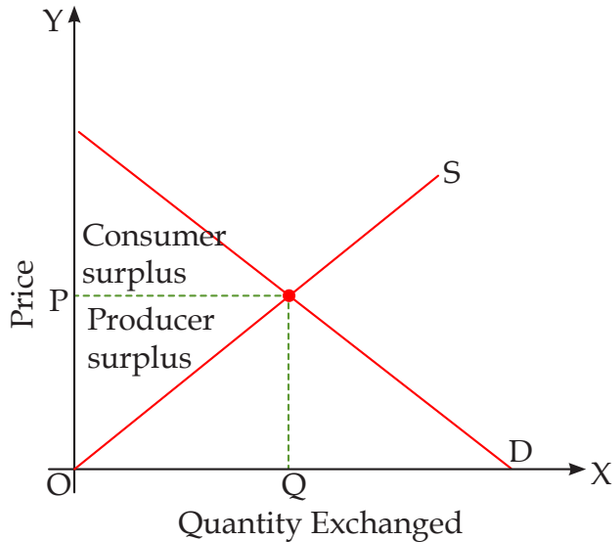


Fig.: Equilibrium Price and Social Efficiency

For all quantities below OQ, we find that there is a difference between the price that producers are willing to accept for supplying the good and the price that prevails in the market (P). Producer surplus disappears when market price is at equilibrium i.e the price at which sellers are willing to offer for sale is equal to the price that they receive.

From figure, we find that at price P, when the market is in equilibrium, social efficiency is achieved with both producers and consumers enjoying maximum possible surplus.

03 THEORY OF PRODUCTION AND COST

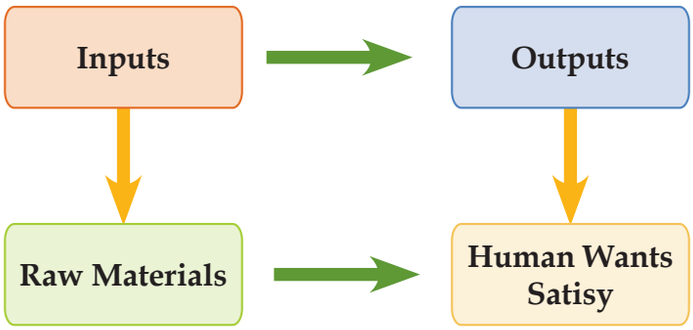
CONTENT OF THE CHAPTER

Unit-1: Thoeory of Production
Unit-2: Theory of Cost

UNIT-1: THOEORY OF PRODUCTION

MEANING OF PRODUCTION (MAKING OR MANUFACTURING)

Economic Activity





Inputs – Resources

Transformation



Output – Final Product

Point to be Noted

Production Does Not Include Work done within household by anyone out of Love or Affection.
Example: Food Cooked by Mother is not production.

In Production Man uses men, machine, material, Time to Convert them into final commodities and Services to satisfy human wants.

According to **James Bates and J.R. Parkinson** "Production is the organized activity of transforming resources into finished products in the form of goods and services; and the objective of production is to satisfy the demand of such transformed resources".

Matter – Natural Things

Man Cannot Create Matter

Man utilises Natural things to Produce other things

Production gives benefits to Consumers

Production Confers /Gives following Types of Utility-

1. Place utility: **Extraction of Natural Resources, E.g. Apple from Kashmir.**
2. Time utility: **Canning of fruits, Safal Mater**
3. Form utility: **Input → Output**
4. Personal utility: **Skills, Services of CA, services of a Manager etc.**

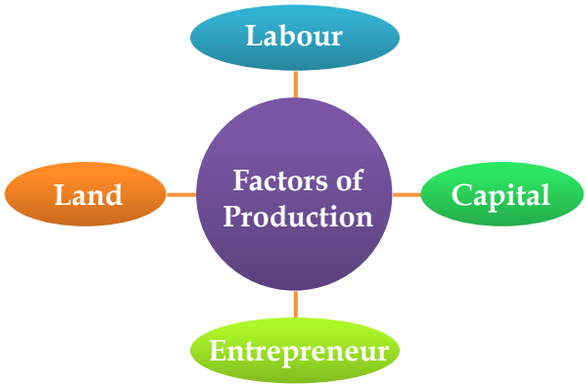
Questions

1. The term production in economics means-
   (*a*) Creation of physical product only
   (*b*) Rendering of a service only
   (*c*) Creation of economic utilities
   (*d*) None of the above
2. Production is defined as:
   (*a*) Creation of matter
   (*b*) Creation of utility in matter
   (*c*) Creation of infrastructural facilities
   (*d*) None of the above
3. Which of the following statements is true?
   (*a*) The services of a doctor are considered production
   (*b*) Man can create matter
   (*c*) The services of a housewife are considered production
   (*d*) When a man creates a table, he creates matter
4. Which of the following is considered production in Economics?
   (*a*) Tilling of soil
   (*b*) Singing a song before friends
   (*c*) Preventing a child from falling into a manhole on the road
   (*d*) Painting a picture for pleasure

Answers

1. (*c*) **2.** (*b*) **3.** (*a*) **4.** (*a*)

FACTORS OF PRODUCTION/ FACTOR INPUTS/RESOURCES



Question

1. Which of the following factors or resources make it possible to produce goods and services?
(*a*) Land, Labour, Industrial policy and Capital **(Sept. 2025)**
(*b*) Land, Labour, Fiscal Policy and Capital
(*c*) Land, Labour, Capital and Entrepreneurial ability
(*d*) Land, Labour, Technology and Capital

Answer

1. (*c*)

LAND

Land Includes

1. Natural Resources
2. Soil
3. Water
4. Air
5. Light

Features

1. Land is a free gift of nature.
2. Land is permanent and has indestructible powers.
3. Land is a passive factor: **Give effort.**
4. Land is immobile: **Not Shiftable.**
5. Land has multiple uses: **Farming, Factory, Park, Road etc.**
6. Land is heterogeneous: **(Differ in fertility and situation).**
7. Supply of land is fixed.

Supply of land is Perfectly Inelastic from overall Economy's Point of View.
Land is relatively elastic from the point of view of a firm/individual.

Questions

1. Supply of Land is: **(Nov. 2019)**

(*a*) Elastic (*b*) Perfectly Elastic
(*c*) Perfectly Inelastic (*d*) Inelastic

2. Which of the following is not a characteristic of Land? **(Jan. 2025)**

(*a*) Land is heterogenous (*b*) Land is an active factor
(*c*) Supply of Land is fixed (*d*) Land has multiple uses

3. Which of the following is not a characteristic of Land?

(*a*) Its Supply for the economy is limited
(*b*) It is immobile
(*c*) Its usefulness depends on human efforts
(*d*) It is produced by our forefathers

4. Which among the following is not a characteristic of land?

(*a*) It is an active factor (*b*) It has variety of uses
(*c*) Its production powers are indestructible (*d*) Its supply is limited

5. No two pieces of land are alike. They differ in fertility and situation. Therefore, Land is _____

(*a*) Homogenous (*b*) Heterogeneous
(*c*) Bitrogenous (*d*) None of these

Answers

1. (*c*) **2.** (*b*) **3.** (*d*) **4.** (*a*) **5.** (*b*)

LABOUR

1. Work = Labour
(a) Physical Exertion
(b) Mental

2. Worker = Labourer

Labour Includes

1. Physical Exertion
2. Skill
3. Intellect → Knowledge

Characteristics of Labour

1. Human Effort.
2. Labour is perishable: Labour Power Cannot be stored.
3. Labour is an active factor.
4. Labour is inseparable from the labourer.
5. Labour power differs from labourer to labourer.
6. All labour may not be productive.
7. Labour has poor bargaining power.

8. Labour is mobile: Shiftable.
9. Choice between hours of labour and hours of leisure.
10. There is no rapid adjustment of supply of labour to the demand for it.

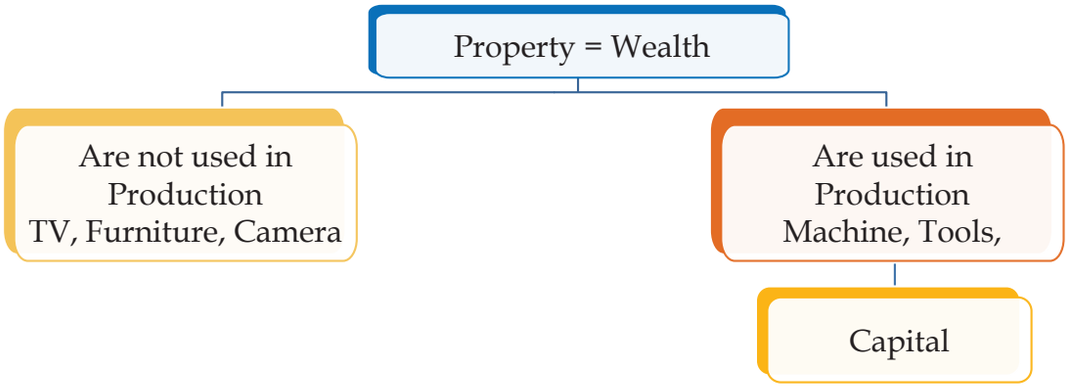
Question

1. Which of the following is not a characteristic of Labour?
   (*a*) It is perishable
   (*b*) It has weak bargaining power
   (*c*) Labour and Labour power can not be separated
   (*d*) Labour is not mobile

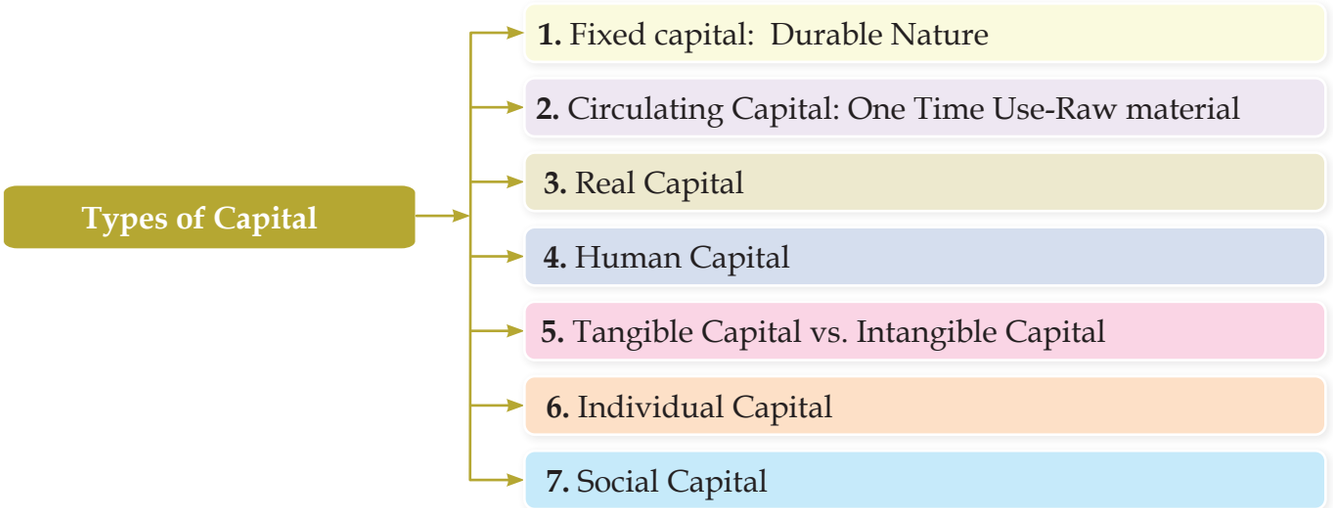
Answer

1. (*d*)

CAPITAL



- Capital is part of wealth which is used in production.
- Resourcel factor
- Capital is produced means of production. Labour and Land are not produced factors. They are primary or original factors of production but capital is not a primary or original factor.
- Capital is a stock concept and income is flow concept.



1. Fixed capital is that which exist in durable shape and renders services. For example - tools, machines, etc.
2. Circulating capital is a single use capital and is not available for further use. For example - seeds, fuel, raw materials, etc.
3. Real (Tangible) capital refers to physical goods such as building, plant, machines, etc.
4. Human capital refers to human skill and ability.
5. Tangible capital can be perceived by senses whereas intangible capital is in the form of certain rights and benefits which cannot be perceived by senses. For example, copyrights, goodwill, patent rights, etc.
6. Individual capital is personal property.
7. Social Capital is what belongs to the society as a whole in the form of roads, bridges, etc.

Questions

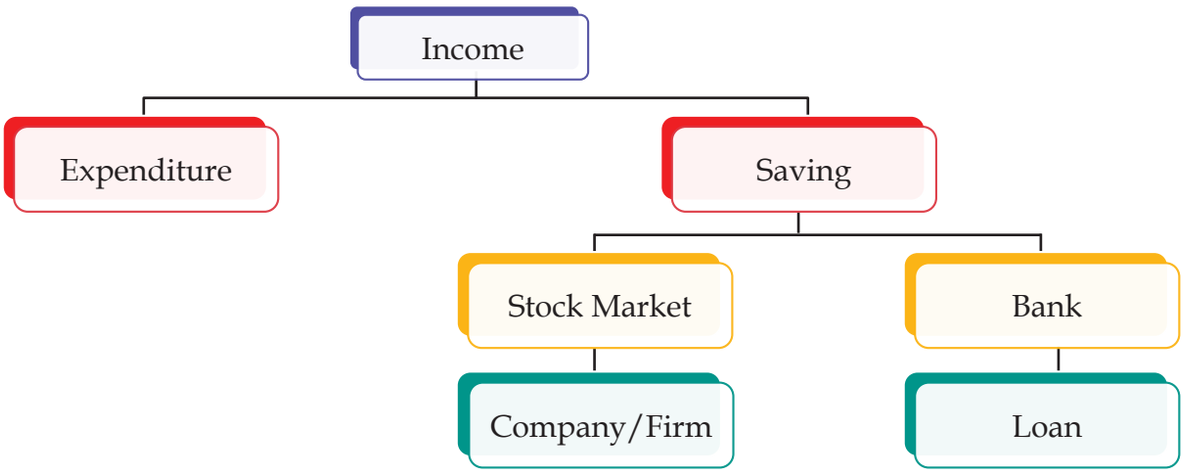
1. Machine
   (*a*) Real (*b*) Tangible
   (*c*) Fixed (*d*) All of the above
2. Circulating capital means. **[June 2024]**
   (*a*) Capital is durable source which gives returns for a specific period.
   (*b*) Interest generated from capital and reinvested to earn more interest.
   (*c*) Capital performs its production function in single use and not used further.
   (*d*) Used for series of services over a period of time.

Answers

1. (*d*) **2.** (*c*)

Capital Formation

Capital formation means a sustained increase in the stock of real capital in a country.
It involves production of more capital goods like, Machines, Factories, etc. Which are used for further production of other goods.
Capital formation is also known as Investment.



Stages of Capital Formation

1. Savings
2. Mobilizations of Savings
3. Investment

ENTREPRENEUR

He is also known as Organiser/Manager/Risk-Taker.



Entrepreneur is a factor which

- Mobilizes other factors of production
- Combines them in right proportion
- Initiates process of production and bears risks involved in it

1. **Business Risk**
   (i) Success
   (ii) Fail
2. **Financial Risk**
   Debt → Repay
3. **Technological Risk**
   New Tech – Adopt

Constraints of an Enterprise in Achievement of Its Objectives

1. Initiating business enterprise and resource Co-Ordination.
2. Risk bearing or uncertainty bearing.
3. Innovations: **Most Important Function.**

1. **Initiating business enterprise and resource co-ordination:**
   - The first function of an entrepreneur is to start a business. For this he brings together the different factors of production like land, labour and capital.
   - He pays them their respective remuneration i.e. Rent for Land, Wages to Labour, Interest on Capital.

2. **Risk bearing or uncertainty Bearing:**
   - Financial risks and Technological risks, Profit is reward, Risk bearing cannot be delegated.
   - Prof. F.H. Knight – Profit is the reward for bearing risk and uncertainties.
3. **Innovations – Most Important Function:**
   - Prof. Joseph A. Schumpeter Consider innovation as the true function of the entrepreneur.

Question

1. Which of the following is a function of an entrepreneur?
   (*a*) Initiating a business enterprise
   (*b*) Risk bearing
   (*c*) Innovating
   (*d*) All of the above

Answer

1. (*d*)

Enterprise's Objectives

1. Organic Objectives: Survival, Growth, Expansion, Fitness of Employees.
2. Economic Objectives: Profit.
3. Social Objectives: Society Related.
4. Human Objectives: Employees Related.
5. National Objectives: Towards Nation.

1. **Organic objectives:** The basic purpose of all kinds of enterprises is to Survive and Exist i.e. to stay alive. This is possible only when it is able to recover its costs and earn profits. Once the enterprise is assured of its survival, it will aim at growth and expansion.

   RL Marris's theory assumes that the goal that managers of corporate firm set for themselves is to maximize the firm's balance growth rate.
2. **Economic objectives - Profit:**
   - H.A. Simon argues that firms have 'satisfying' behavior and strive for profits that are satisfactory.
   - Baumol's theory of sales maximization holds that sales revenue maximisation rather than profit maximization is the ultimate goal of the business firms.
   - Cyret and March suggested 4 possible functional goals in addition to profit i.e., production goal, inventory goal, sales goal and market share goal.
   - A.A. Berle and G.C. Means pointed out that in large business corporations, management is separated from ownership and therefore the managers enjoy discretionary powers to set goals of the firm they manage.
   - Williamson's model of maximization of managerial utility function is an important contribution to managerial theory of firm's behavior.

3. **Social objective – Related to society:**
   - Continuous and sufficient supply of unadulterated goods and articles of standard quality.
   - Avoid profiteering and anti-social practices
   - Create employment for people in the society
   - Does not cause pollution.
4. **Human objective – Related to human and employee:**
   - Fair deal to employee
   - Develop new skills and ability
   - Provide the employees an opportunity to participate in decision making
   - Make job content interesting and challenging.
5. **National Objectives - Towards nation:**
   - Remove inequalities of opportunities and to provide fair opportunities to all
   - Produce according to national priorities
   - Country become self-reliant and avoid dependence on other nations
   - Train young man as apprentices and thus contribute in skill formation for economic growth.

Question

1. According to _____ innovations introduced by an entrepreneur give rise to profits.
   (*a*) Prof. F. H. Knight – Profit is reward for Risk bearing
   (*b*) Prof. Joseph A. Schumpeter
   (*c*) Prof. Paul Samuelson
   (*d*) Dr. Alfred Marshall

Answer

1. (*d*)

Constraints of an Enterprise in Achievement of its Objectives

In the pursuit of the objectives an enterprise's action may get constrained in following ways:

1. Lack of knowledge and information about many variable that affect business.
2. Constraints may be experienced due to government's restrictions on the production, price and movement of factors.
3. There may be infrastructural bottleneck.
4. Changes in business and economic conditions, change in government policies about location, prices, taxes, etc.; natural calamities like fire, flood, famine, etc.
5. Constraints are also faced due to inflation, rising interest rates, unfavorable exchange rate, capital and labour costs, etc.

Enterprise's Problems

1. Problems relating to objectives
2. Problems relating to location and size of the plant
3. Problems relating to selecting and organizing physical facilities
4. Problems relating to Finance
5. Problems relating to organisation structure
6. Problems relating to marketing
7. Problems relating to legal formalities
8. Problems relating to industrial relations

Four (4) P's of Marketing

1. Price
2. Promotion
3. Place → Physical Distribution
4. Product: Quality, Packaging, Branding

Questions

1. After Identifying the market, the enterprise has to make decision regarding 4 P's Namely: **(Sept. 2025)**

   (*a*) Product, Promotion, Price and Purchase
   (*b*) Product Promotion, Profit and Place
   (*c*) Product, Promotion, Price and Place
   (*d*) Product, Purchase, Price and Placement

2. The concept of "Innovative entrepreneurship" was given by: **(Nov. 2020)**

   (*a*) Adam Smith (*b*) Marshall
   (*c*) J. K. Mehta (*d*) Schumpeter

Answers

1. (*c*) **2.** (*d*)

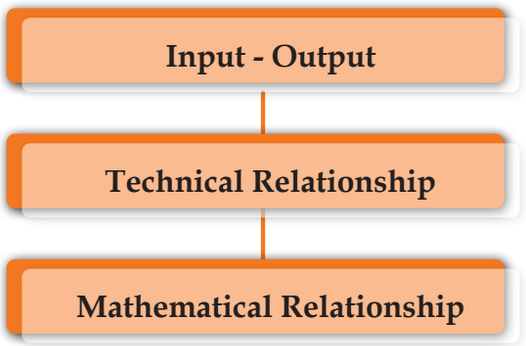
Please Note This

Factors of Production (Land, Labours, Capital Entrepreneur)

1. Fixed Factors: Factors that are not changed
2. Variable Factor: Factors that are changeable

TIME PERIOD

Short-Run	Long-Run/Planning Horizon
It is that Time Period Where at Least one input remains Fixed/Constant.	It is that Time Period where all inputs are changeable/Variable.



PRODUCTION FUNCTION - MEANING

It refers to the Mathematical/Technical relationship between dependent variable (Output) and independent variable (Input).

$$Q_x = f(L, K)$$

The relationship between the maximum amount of output that can be produced and the input required to make that output. It is defined for a given state of technology i.e., the maximum amount of output that can be produced with given quantities of inputs under a given state of technical knowledge. **(Samuelson)**

It can also be defined as the minimum quantities of various inputs that are required to yield a given quantity of output.

1. Fixed factor
2. Variable Factor
3. Short Run
4. Long-Run
5. Production Function – Samuelson
   - Meaning
   - Types
   - Assumptions

Question

1. Which of the following is the best definition of "Production Function"?
   (*a*) The relationship between market price and quantity supplied
   (*b*) The relationship between market the firm's total revenue and the cost of production
   (*c*) The relationship between the quantities of inputs needed to produce a given level of output
   (*d*) The relationship between the quantity of inputs and the firm's marginal cost of production

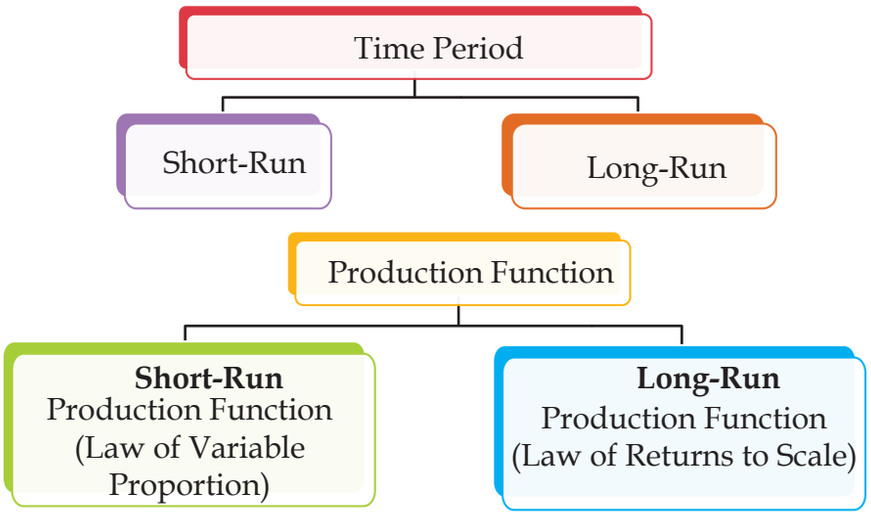
Answer

1. (*c*)

Meaning of Long-Run Production Function

1. Relationship between input and output exist for specific period of time.
2. Production technology remains constant or given 'state-of-the-art' in production technology.

3. The Output resulting from use/utilization of inputs is at the maximum level of output (No Wastage)



MEANING OF SHORT-RUN PRODUCTION FUNCTION

Short-Run Production Function shows maximum amount of a good/service that can be produced by set of firms assuming at least one input remains unchanged/Fixed.

MEANING OF LONG-RUN PRODUCTION FUNCTION

Long-run production function shows maximum quantity of a good or service that can be produced by set of inputs assuming that the firm is free to vary the amount of all inputs being used.

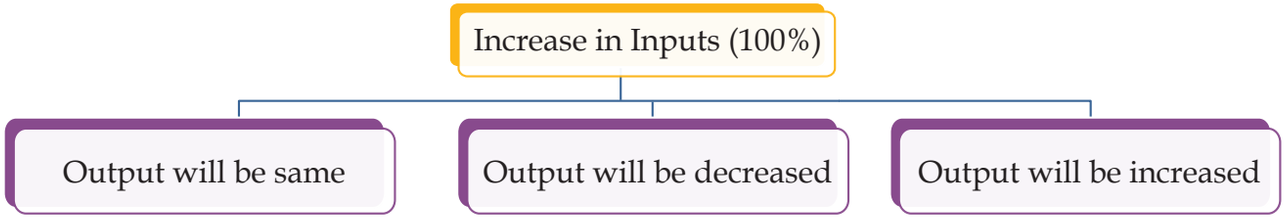
Long-Run

Input↑→ Output↑

Change in Scale → Change in Qty of Input in equal ratio Same Proportion

Change in Scale

A change in Scale means that all factors of production are increased or decreased in same production.



Law of Returns to Scale → Long-Run

Input ↑	Output ↑
50%↑	50%↑ ⇒ CRS
50%↑	40↑ ⇒ DRS
50%↑	90%↑ ⇒ IRS

LAW OF RETURNS TO SCALE

Example: When all inputs are increased by (50%)

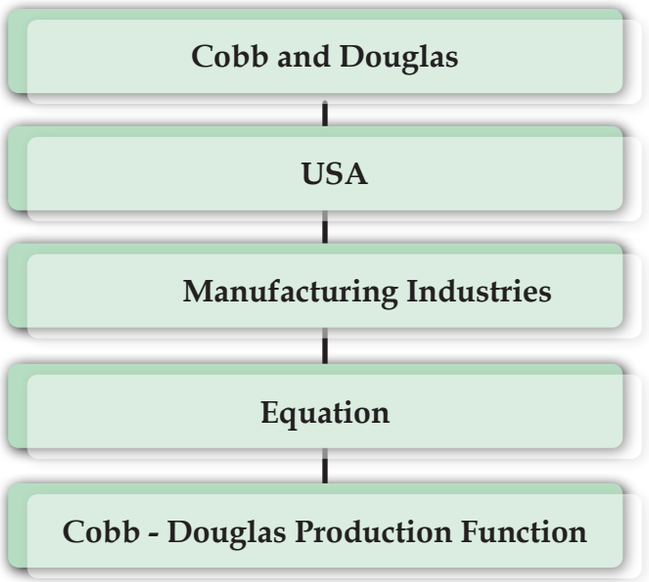
1. **Constant Returns to Scale (CRS)**
   % Increase in Output = % Increase in Input = 50%
   Eg: If output increases by 50%, then it is CRS
   CRS is also referred to as **"Linear Homogeneous Production Function"**
2. **Increasing Returns to Scale (IRS)**
   % Increase in Output > % Increase in Input
   Eg: If output increases by 60%, then it is IRS
3. **Decreasing Returns to Scale (DRS)**
   % Increase in Output < % Increase in Input
   Eg: If output increases by 40% then it is DRS

Questions

1. If decreasing returns to scale are present, then if all inputs are increased by 10% then:
   (*a*) Output will also decrease by 10%
   (*b*) Output will increased by 10%
   (*c*) Output will increased by less than 10%
   (*d*) Output will increased by more than 10%
2. Which of the following statements describes increasing returns to scale?
   (*a*) Doubling of all inputs used leads to doubling of the output
   (*b*) Increasing the inputs by 50% leads to a 25% increasing in output
   (*c*) Increasing inputs by 1/4 leads to an increase in output of 1/3
   (*d*) None of the above

Answers

1. (*c*) **2.** (*c*)



COBB-DOUGLAS PRODUCTION FUNCTION

$$Q = K.L^{a}.C^{1-a}$$
$$Q = K.L^{a}.C^{1-b}$$

$a + b = 1 \Rightarrow$ CRS

$a + b > 1 \Rightarrow$ IRS

$a + b < 1 \Rightarrow$ DRS

A famous statistical production function is Cobb-Douglas production function. Paul H. Douglas and C.W. Cobb of the U.S.A. studied the production function of the American manufacturing industries. In its original form, this production function applies not to an individual firm but to the whole of manufacturing in the United States. In this case, output is manufacturing production and inputs used are labour and capital.

Cobb-Douglas production function is stated as:

$$Q = KL^{a}C^{(1-a)}$$

where 'Q' is output, 'L' the quantity of labour and 'C' the quantity of capital. 'K' and 'a' are positive constants.

The conclusion drawn from this famous statistical study is that labour contributed about 3/4th and capital about 1/4th of the increase in the manufacturing production. Although, the Cobb-Douglas production function suffers from many shortcomings, it is extensively used in Economics as an approximation.

Questions

1. $2\sqrt{L.K}$

(*a*) IRS (*b*) DRS

(*c*) CRS (*d*) None of these

2. If Cobb-Douglas function is given by $Q = KL^{a}C^{b}$, then there will be _____ when (a + b). **(CA CPT May 2008)**

(*a*) Increasing Returns, > 1

(*b*) Increasing Returns to Scale, > 1

(*c*) Diminishing Returns, < 1

(*d*) Decreasing Returns to Scale, = 1

3. When output increase in a smaller proportion with an increase in all inputs Diminishing returns to scale set in.

(*a*) Increasing (*b*) Decreasing

(*c*) Constant (*d*) Circular

4. Constant Returns to Scale are also called as _____ Production Function.

(*a*) Linear (*b*) Curvilinear

(*c*) Linear Homogenous (*d*) Curvilinear Homogenous

Answers

1. (*c*) **2.** (*b*) **3.** (*b*) **4.** (*c*)

ISOQUANTS

Iso → Same/Equal

Quant → Quantity → 1000 Shoes Pair

L	K
1	10
2	6
3	3
4	1

1L + 10k = 1000
2L + 6k = 1000
3L + 3k = 1000
4L + 1k = 1000

Isoquants: Equal-product curves, production indifference curves or iso-product curves.

An isoquant represents combinations of inputs which can produce the same level of output.

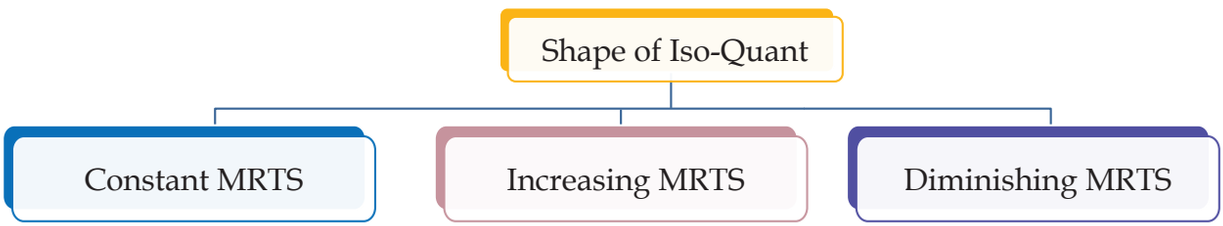
Properties of Isoquants

1. Negatively sloped
2. Convex to the origin
3. Curve on right represents a higher level of output
4. Non intersecting

1. Downward Sloping OR Negatively Sloped
2. Convex to Origin

   MRTS = $\Delta Y : \Delta X$

L	K
1	10
2	6
3	3
4	1



3. Higher IQ Curve shows higher output

   $IQ_3 > IQ_2 > IQ_1$
4. Two IQs can never intersects each other
   1. Negatively sloped
   2. Convex to the Origin

3. Curve on right represents a higher level of output
4. Non Intersecting

Questions

1. An iso quant shows:
   (*a*) All the alternative combinations of two inputs that can be produced by using a given set of output fully and in the best possible way
   (*b*) All the alternative combinations of two products among which a producer is indifferent because they yield the same profit
   (*c*) All the alternative combinations of two inputs that yield the same total product
   (*d*) Both (*b*) and (*c*)
2. Isoquants are negatively sloped and _____ to the origin due to _____ Marginal Rate of Technical Substitution (MRTS).
   (*a*) Convex, Increasing
   (*b*) Convex, Decreasing
   (*c*) Concave, Increasing
   (*d*) Concave, Decreasing

Answers

1. (*c*) 2. (*b*)

ISO-COST LINE

- Iso-Cost Line, Equal-Cost Line or budget line of producer or budget constraint line of producer.
- It shows various alternative combinations of two factors which the firm can buy with given outlay/Cost/Expenditure.
- Whatever be the combination of factors the firm chooses on iso-cost line, the total cost to firm remains the same.

A producer can produce the desired output at least possible cost at equilibrium.

Producer equilibrium will be achieved where iso-cost line is TANGENT to isoquant.

However, one important difference between isoquant and Indifference curve is that in an

- Isoquant: Level of production is easily quantified whereas,
- In an indifference curve it is not possible to quantify the level of satisfaction acquired by the consumer.

10, 20, 30, 40, 50, 60	→	Increasing at same/constant rate
10, 20, 40, 80, 130, 200	→	Increasing at increasing rate
10, 20, 29, 35, 36	→	Increasing at decreasing rate
		↓ Diminishing

Short-Run

↓

At least one factor input remains constant/fixed

(Capital, Labour)
↓ ↓
Fixed Variable
Output = Total Product (TP)

C	L	Output	MP
1	0	0	–
1	1	100	100
1	2	300	200
Fixed Factor	Variable Factor		

L	TP	MP
1	10	10
3	20	5

$MP = TP_n - TP_{n-1}$

$$= \frac{\Delta TP}{\Delta T} = \frac{10}{3-1} = \frac{10}{2} = 5$$

$$= \frac{\Delta TP}{\text{Change in units of variable Factor}}$$

Output = Total Product (TP) Marginal Product

C	L	Output	MP	Average Product (AP)
1	0	0	–	–
1	1	100	100	100
1	2	300	200	150

Total Product (TP): TP the total output resulting from the efforts of all factors of production combined together at any time. **(TP = ΣMP = AP × L)**

Average Production (AP): AP is the total product per unit of the variable factor.

AP = TP/L

Marginal Product (MP): MP is the change in total product per unit change in quantity of variable factor.

$MP = TP_n - TP_{n-1}$

$$= \frac{\Delta TP}{\Delta L}$$

C	L	TP
1	1	100
1	2	300
1	3	600
1	4	800
1	5	900
1	6	900
1	7	800

TP is increasing at increasing rate
TP is increasing at decreasing rate
TP is start decreasing

C	L	TP	MP
1	1	100	100
1	2	300	200
1	3	600	300
1	4	800	200
1	5	900	100
1	6	900	0
1	7	800	–100

LAW OF VARIABLE PROPORTIONS OR THE LAW OF DIMINISHING RETURNS

The law states that as we increase the quantity of one input which is combined with other fixed input, the marginal physical productivity of the variable input must eventually decline.

C	L	TP	$AP = \frac{TP}{L}$
1	1	100	$\frac{100}{1} = 100$
1	2	300	$\frac{300}{2} = 15$
1	3	600	$\frac{600}{3} = 200$
1	4	800	$\frac{800}{4} = 200$
1	5	900	$\frac{900}{5} = 180$
1	6	900	$\frac{900}{6} = 150$
1	7	800	$\frac{800}{7} = 114.2$

C	L	TP	$AP = \frac{TP}{L}$	MP
1	1	100	100	100
1	2	300	150	200
1	3	600	200	300
1	4	800	200	200
1	5	900	180	100

1	6	900	150	0
1	7	800	114.2	–100

Relationship b/w MP and AP

1. MP = AP > AP is Maximum OR MP curve cuts AP curve its maximum
2. MP > AP → AP rises
3. MP < AP → AP Falls

C	L	TP	$AP = \frac{TP}{L}$	MP
1	1	100	100	100
1	2	300	150	200
1	3	600	200	300
1	4	800	200	200
1	5	900	180	100
1	6	900	150	0
1	7	800	114.2	–100

Stage I	Increasing Return	MP > AP
Stage II	Diminishing Return	AP > MP
Stage III	Negative Return	AP > MP

Three Stages of Production Under Short Run Production Function

Stage	TP	MP	AP
I	Increasing at an increasing rate and increases at decreasing rate	Increases and reaches at maximum point and starts falling.	Increases and reaches its maximum point
II	Increases at diminishing rate and reaches its maximum point	Decreases and becomes Zero	After reaching its maximum point beings to decreases
III	Begins to fall	Becomes Negative	Continues to Diminish

Stage 2 : Stage of Operation

Stage 1 and Stage 3: Stage of Absurdity OR Non-Senses

Reasons – Stage 1: The Stage of Increasing Returns

1. Better Utilisation of fixed factor – Efficiency of fixed factor increases
2. Division of Labour and increase in efficiency and Specialization.

Reasons – Stage 2: The Stage of diminishing Returns

1. Indivisible Factor (fixed factor) is working too hard
2. Imperfect factor substitutability of Labour and Capital

Reasons – Stage 3: The Stage of Negative Returns

Quantity of Variable factor is too Excessive/Large

Questions

1. Identify the correct Statement:

(*a*) The average product is at its maximum when marginal product is equal to average product

(*b*) The law of increasing returns to scale relates to the effect of changes in factor proportions

(*c*) Economies of scale arise only because of indivisibilities of factor proportions

(*d*) Internal economies of scale can accrue when industry expands beyond optimum

2. The "Law of diminishing returns" applies to:

(*a*) The short run, but not the long run

(*b*) The long run, but not the short run

(*c*) Both the short run and the long run

(*d*) Neither the short run nor the long run

3. What is the total output when 2 hours of labour are employed?

Hours of Labour	Total Output (TP)	Marginal Product
0	–	–
1	100	100
2	–	80
3	240	–

(*a*) 80 (*b*) 100

(*c*) 180 (*d*) 200

4. What is the marginal product of the third hour of labour?

Hours of Labour	Total Output	Marginal Product
0	–	–
1	100	100
2	180	80
3	240	60

(*a*) 60 (*b*) 80

(*c*) 100 (*d*) 240

5. What is the average product of the first three hours of labour?

Hours of Labour	Total Output	Marginal Product
0	–	–
1	100	100
2	180	80
3	240	60

(*a*) 60 (*b*) 80

(*c*) 100 (*d*) 240

6. When average product rises as a result of an increase in the quantity of variable input, marginal product is:

(*a*) Less than the average product
(*b*) Minimum
(*c*) Equal to the average product
(*d*) More than the average product

7. Based on the information given in the following table.

Product Schedule

Quantity of Labour	Total Product (TP)	Average Product (AP)	Marginal Product (MP)
0	0	-	-
1	-	-	20
2	-	-	26
3	66	-	-
4	76	19	10
5	80	-	4

What will be the marginal product when the quantity of labour is 4?

(*a*) 26 (*b*) 20
(*c*) 10 (*d*) 19

8. Based on the information given in the following table.

Product Schedule

Quantity of Labour	Total Product (TP)	Average Product (AP)	Marginal Product (MP)
0	0	-	-
1	-	-	20
2	-	-	26
3	66	-	-
4	76	19	10
5	80	-	4

What will be the average product when the quantity of labour is 3?

(*a*) 22 (*b*) 24
(*c*) 20 (*d*) 18

9. Based on the information given in the following table.

Product Schedule

Quantity of Labour	Total Product (TP)	Average Product (AP)	Marginal Product (MP)
0	0	-	-
1	-	-	20
2	-	-	26

3	66	-	-
4	76	19	10
5	80	-	4

What will be the average product when the quantity of labour is 5?

(*a*) 22

(*b*) 24

(*c*) 20

(*d*) 16

10. If a firm adds more number of workers but total output starts to increase at a decreasing rate, the firm is experiencing:

(*a*) Increasing Return to Scale

(*b*) Diminishing Marginal Returns

(*c*) Constant Returns to Scale

(*d*) Negative Marginal Returns

11. Which of the following statements are correct?

Statement-I: A period will be considered short-run period if the amount of at least one of the inputs used remains unchanged during that period.

Statement-II: The long run is a period of time in which all factors of production are variable.

Statement-III: In the short run all inputs are fixed.

Statement-IV: In the long run all inputs except one are fixed.

(*a*) Statement-I and Statement-IV

(*b*) Statement-II and Statement-III

(*c*) Statement-I and Statement-II

(*d*) Statement-III and Statement-IV

Answers

1. (*a*) **2.** (*a*) **3.** (*c*) **4.** (*a*) **5.** (*b*) **6.** (*d*) **7.** (*c*) **8.** (*a*) **9.** (*d*) **10.** (*b*)
11. (*c*)



RAW MATERIAL



SALARY





❑ Rent	❑ Purchase of Raw Material
❑ Interest	❑ Tax on Production/Excise duty
❑ License fee	

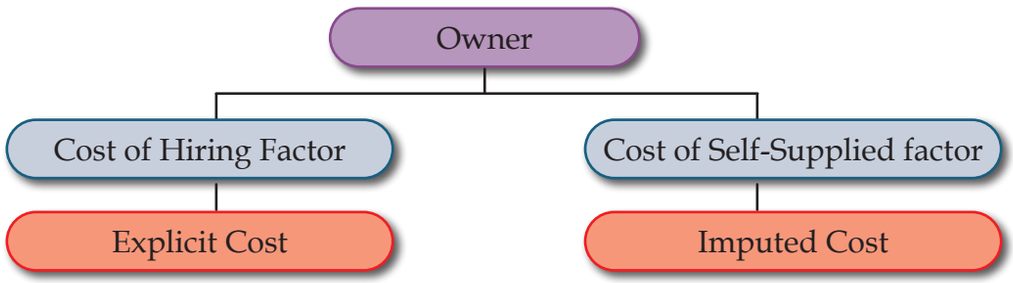
MEANING OF COST

- ❑ It refers to the money expenditure incurred in the production of a commodity.
- ❑ Cost concepts are financial aspects of production
  → Production is physical aspect of production

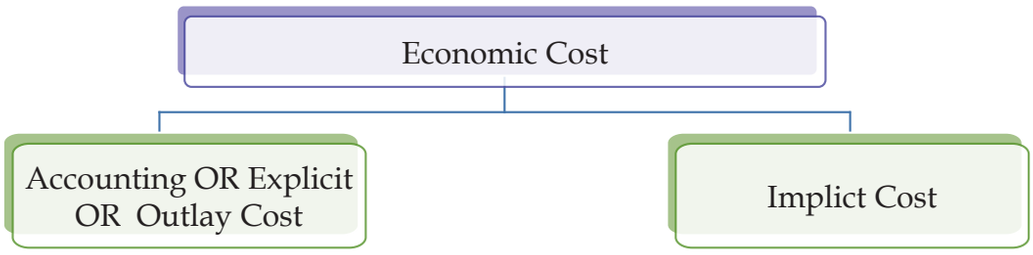
Types of Cost

1. Accounting Costs and Economic costs
2. Outlay costs and Opportunity costs
3. Direct or Traceable costs and Indirect or Non-Traceable Costs
4. Incremental costs and Sunk costs
5. Historical costs and Replacement costs
6. Private costs and Social costs
7. Fixed and Variable costs

Raw Material
Salary
Electricity bill
Interest Payment
⇓
Accounting Cost OR Explicit Cost
OR
Outlay Cost → Actual Expenditure



Explicit Cost
+
Implicit Cost → Includes Normal Profit
⇓ ↓
Economics Cost the minimum level of profit needed for survival of firm.
↓
Laymen's Language
↓
No Profit No Loss



ACCOUNTING COSTS

- **Accounting Cost/Explicit Cost** relate to those costs which involve cash payments by the entrepreneur of the firm.
- Accountant record these in the financial statements of the firm.
- **Implicit Cost:** Cost of self-supplied factors of owner.
- Examples of implicit cost:
  1. The normal/expected return on money capital invested by the entrepreneur himself in his own business.
  2. The wages OR salary not paid to the entrepreneur, but could have been earned if the services had been sold somewhere else.
- Economic costs include both accounting costs and implicit costs.
- The concept of economic cost is important because an entrepreneur must cover his economic cost if he wants to earn normal profits.

Total Revenue = 1000 (Total Sales)

Accounting Cost = 600 (Expliciat Cost)

Accounting Profit = 400

Total Revenue = 1000

Accounting Cost = –600

Implicit Cost = –100

Economic Profit = 300

Questions

1. Total Cost = Explicit Cost + Implicit Cost + _____. **(Nov. 2019)**

(*a*) Super Normal Profit (*b*) Normal Profit

(*c*) Super Normal Losses (*d*) Average Fixed Cost

2. Which of the following is an example of "explicit cost"?

(*a*) The wages a proprietor could have made by working as an employee of a large firm

(*b*) The income that could have been earned in alternative uses by the resources owned by the firm

(*c*) The payment of wages by the firm

(*d*) The normal profit earned by a firm

3. Which of the following is an example of an "Implicit cost"?

(*a*) Interest that could have been earned on retained earnings used by the firm to finance expansion

(*b*) The payment of rent by the firm for the building in which it is housed

(*c*) The interest payment made by the firm for funds borrowed from a bank

(*d*) The payment of wages by the firm

Answers

1. (*b*) **2.** (*c*) **3.** (*a*)

TYPES OF COSTS

1. Accounting Costs and Economic Costs
2. Outlay costs and Opportunity costs
3. Direct or Traceable costs and Indirect or Non-Traceable costs
4. Incremental costs and Sunk Costs
5. Historical cost and Replacement costs
6. Private costs and Social Costs
7. Fixed and Variable costs

Outlay Costs

- Outlay costs involve actual expenditure of funds like expenditure on wages, materials, rent, interest, etc.
- Outlay costs involve financial expenditure and hence are recorded in the books of account.

Opportunity Costs

- Opportunity cost is the amount or subjective value that is foregone in choosing one activity over the next best alternative.
- It is the cost of the missed opportunity and involves a comparison between the policy that was chosen and the policy that was rejected
- It is not recorded in the books of accounts.



Stair – Step Variable Costs

Direct costs are costs that are readily identified and are traceable to a particular product, operation or plant.

Indirect Costs are those which are not easily and definitely identifiable in relation to a plant, product, process or department. Eg.: Electric Power, Common costs for general Operations etc.

INCREMENTAL COSTS AND SUNK COSTS

- **Sunk costs** refer to those costs which are already incurred once and for all and cannot be recovered. They are based on past commitments and cannot be revised or reversed if the firm wishes to do so.

- Examples of sunk costs are expenses incurred on advertising, R&D, specialized equipment's and fixed facilities such as railway lines.

Incremental Costs: Incremental costs are related to the concept of marginal cost. Incremental cost refers to the additional cost incurred by a firm as result of a business decision.

Question

1. _____are already incurred once and for all, and cannot be recovered. **(Jan. 2025)**

(*a*) Sunk costs (*b*) Historical Costs
(*c*) Private Costs (*d*) Social Costs

Answer

1. (*a*)

HISTORICAL COST AND REPLACEMENT COSTS

- Historical cost refers to the cost incurred in the past on the acquisition of a productive asset such as machinery, building etc.
- Replacement cost is the money expenditure that has to be incurred for replacing an old asset.

PRIVATE COSTS AND SOCIAL COSTS

Private costs are costs actually incurred or provided for by firms. It is internalized by the firms.

Social cost refers to the total cost borne by the society on account of a business activity. It includes the cost of resources for which the firm is not required to pay price such as atmosphere, rivers, roadways etc. and the cost in terms of dis-utility created such as air, water and environment pollution.

Social Cost = Pvt. Cost + External Cost

Question

1. Which of the following is incurred first? **(MTP April 2025)**

(*a*) Historical Cost (*b*) Replacement Cost
(*c*) Realized Value (*d*) None of these

Answer

1. (*a*)

Types of Costs

1. Accounting Costs and Economic Costs
2. Outlay costs and Opportunity costs
3. Direct or Traceable costs and Indirect or Non-Traceable Costs
4. Incremental Costs and Sunk Costs
5. Historical Costs and Replacement Cost
6. Private Costs and Social Costs
7. Fixed and Variable Costs

FIXED COST VS. VARIABLE COSTS

Expenditure on fixed Factors → Do not vary with changes in output

Expenditure on Variable → Variable cost refers to the cost which Increase with Increase in Output.

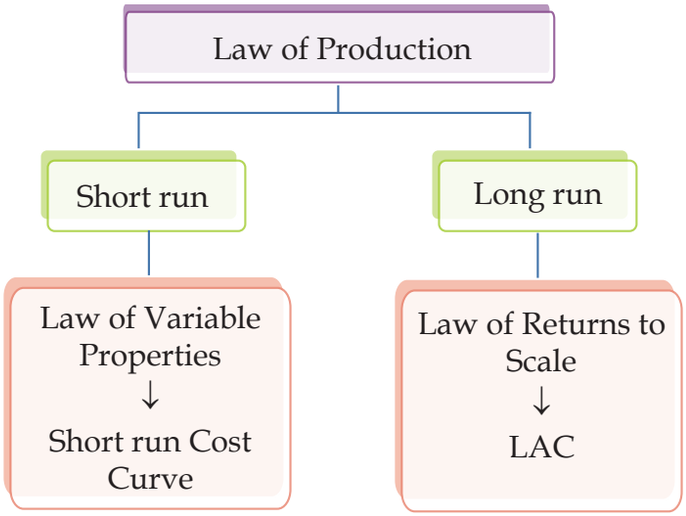
Fixed Cost	Variable Cost
Rent	Purchase of raw Material
Interest	Fuel and Power Used
License Fee	Wages of Casual Labour
Total Fixed Cost	Total Variable Cost

TC = TFC + TVC

→ TFC = TC – TVC

→ TVC = TC – TFC

- TC curve starts from a point on Y-axis i.e., TFC
- TC curve is always parallel to TVC-Curve
- The vertical difference b/w TC and TVC is TFC
- Fixed cost refers to the cost which do not change with changes in output upto a certain level of activity.
- Fixed cost is a function of capacity and variable cost is a function of output.
- If the firm closes down for some time in the short run but remains in business, fixed cost cannot be avoided (Inescapable)



- **Shut down costs** are costs which will continue even after operations are suspended. Eg: cost for storing of old machines which cannot be sold in market.

SEMI – VARIABLE COST

Some cost which are neither perfectly variable, nor absolutely fixed in relation to the changes in the size of output.

Eg.: Electricity charges, Postpaid Phone Bill etc.

STAIR – STEP VARIABLE COSTS

Some costs which may increase in a stair-step Function, i.e., they remain fixed over certain range of output; but suddenly jump to new higher level when output goes beyond a given limit.

For Example: Salary of a Foreman.

COST FUNCTION

Cost function refers to the mathematical relation between cost of a product and the various determinants of costs.

It expresses the relationship between costs and output.

Cost function refers to the mathematical relation between cost of a product and the various determinants of costs. In a cost function, the dependent variable is unit cost or total cost and the independent variables are the price of a factor, the size of the output or any other relevant phenomenon which has a bearing on cost, such as technology, level of capacity Utilisation, efficiency and time period under consideration. Cost function is a function which is obtained from production function and the market supply of inputs. It expresses the relationship between costs and output. Cost functions are derived from actual cost data of the firms and are presented through cost curves. The shape of the cost curves depends upon the cost function. Cost functions are of two kinds: They are short-run cost functions and long-run cost functions.

Questions

1. Cost Function is the mathematical relation between _____ of a Product and the various determinants of _____.

(*a*) Cost, Costs
(*b*) Revenue, Revenues
(*c*) Cost, Revenues
(*d*) Revenue, Costs

2. In a cost function, the dependent variable is unit cost or total cost and the independent variable (s) are _____.

(*a*) Units sold and purchased
(*b*) Price of factor and size of output
(*c*) Relevant phenomenon which has a bearing on cost like technology, level of capacity utilization, efficiency etc.
(*d*) Both (*b*) and (*c*)

3. Cost function is a function which is obtained from _____.

(*a*) Production Function
(*b*) Market Supply of Inputs
(*c*) Market Supply of Outputs
(*d*) Both (*a*) and (*b*)

4. The Cost function expresses the relationship between _____ and _____.

(*a*) Cost, Costs
(*b*) Costs, Output
(*c*) Dependent Variable, Cost
(*d*) None of these

5. Fixed costs may also be called as:

(*a*) Inescapable
(*b*) Uncontrollable
(*c*) Constant
(*d*) All of the above

6. Total cost in the short run is classified into fixed costs and variable costs. Which one of the following is a variable cost?

(*a*) Cost of raw materials
(*b*) Cost of equipment
(*c*) Interest payment on past borrowing
(*d*) Payment of rent on building

7. Which of the following statements is correct concerning the relationship among the firm's cost functions?

(*a*) TC = TFC – TVC
(*b*) TVC = TFC – TC
(*c*) TFC = TC – TVC
(*d*) TC = TVC – TFC

8. If fixed cost is plotted on a graph taking output on X-axis and Cost on Y-axis, the Fixed cost will be represented by _____.

(*a*) Straight line parallel to Y axis (*b*) Straight line parallel to X axis

(*c*) U shaped Curve (*d*) Hyper-Parabola Curve

9. Fixed cost curve normally:

(*a*) Starts from the origin (*b*) Is U shaped

(*c*) Is vertical line (*d*) Is horizontal Line

10. Which cost increases continuously with the increases in production?

(*a*) Average Cost (*b*) Marginal Cost

(*c*) Fixed Cost (*d*) Variable Cost

Answers

1. (*a*) **2.** (*d*) **3.** (*d*) **4.** (*b*) **5.** (*d*) **6.** (*a*) **7.** (*c*) **8.** (*b*) **9.** (*d*) **10.** (*d*)

Formulae

1. $TC = TFC + TVC$
OR
$= AC \times Q$

2. $TFC = TC - TVC$
OR
$= AFC \times Q$

3. $TVC = TC - TFC$
OR
$= AVC \times Q$
OR
$= \Sigma MC$

4. $MC = TVC_n - TVC_{n-1}$
OR
$= \frac{\Delta TVC}{\Delta Q}$
OR
$= TC_n - TC_{n-1}$
OR
$= \frac{\Delta TC}{\Delta Q}$

5. $ATC/AC = AFC + AVC$
$= \frac{TC}{Q}$

6. $AFC = AC - AVC$

OR

$= \frac{TFC}{Q}$

7. $AVC = AC - AFC$

OR

$= \frac{TVC}{Q}$

Questions

1. The Average fixed cost of 2 units of output is:

Output (Q)	0	1	2	3	4	5	6
Total Cost (TC)	₹240	₹330	₹410	₹ 480	₹ 540	₹610	₹690

(*a*) 120 (*b*) 85

(*c*) 125 (*d*) 205

2. Diminishing Marginal Returns start to occur between units:

Output (Q)	0	1	2	3	4	5	6
Total Cost (TC)	₹240	₹330	₹410	₹ 480	₹ 540	₹610	₹690

(*a*) 2 and 3 (*b*) 3 and 4

(*c*) 4 and 5 (*d*) 5 and 6

3. What is the Average Variable Cost (AVC) when the quantity produced is 100 units, the total cost is 1,000 and the fixed cost is ₹200? **(Sept. 2025)**

(*a*) ₹5 (*b*) ₹8

(*c*) ₹10 (*d*) ₹12

4. A firm's average fixed cost is ₹20 at 6 units of output. What will it be at 4 units of output?

(*a*) ₹60 (*b*) ₹30

(*c*) ₹40 (*d*) ₹20

5. A firm's has a variable cost of ₹1000 at 5 units of output. If fixed cost are ₹400, what will be the average total cost at 5 units of output?

(*a*) ₹280 (*b*) ₹60

(*c*) ₹120 (*d*) ₹1400

6. A firm's producing 7 units of output has on average total cost of ₹150 and has to pay ₹350 to its fixed factors of production whether it produces or not. How much of the average total cost is made up of variable costs?

(*a*) ₹200 (*b*) ₹50

(*c*) ₹300 (*d*) ₹100

7. A firm's average total cost is ₹300 at 5 units of output and ₹320 at 6 units of output. The marginal cost of producing the 6th unit is:

(*a*) ₹20 (*b*) ₹120
(*c*) ₹320 (*d*) ₹420

8. Marginal cost changes due to changes in _____.
(*a*) Total Cost (*b*) Average Cost
(*c*) Variable Cost (*d*) Quantity of Output

9. Use the following data to answer question

Quantity	0	10	20	30	40
Total Cost (in)	100	220	320	410	510

What is the average variable cost when 20 units are product?
(*a*) 5 (*b*) 10
(*c*) 11 (*d*) 16

10. Use the following data to answer question

Quantity	0	10	20	30	40
Total Cost (in)	100	220	320	410	510

Between 10 and 20 units, what is the marginal cost per unit?
(*a*) 10 (*b*) 20
(*c*) 100 (*d*) 220

Answers

1. (*c*) **2.** (*c*) **3.** (*b*) **4.** (*b*) **5.** (*a*) **6.** (*d*) **7.** (*d*) **8.** (*c*) **9.** (*c*) **10.** (*a*)

Relationship b/w MC and AC

1. MC – Curve cuts AC Curve at its minimum point

OR

When MC = AC, AC is minimum

2. When MC < AC, AC Falls

3. When MC > AC, AC Rises

Relationship b/w MC and AVC

1. MC – Curve cuts AVC Curve at its minimum point

OR

When MC = AVC, AVC is minimum

2. When MC < AVC, AVC Falls

3. When MC > AVC, AVC Rises

Relationship b/w MC and TVC

1. When MC falls, TVC ↑s at diminishing rate

2. MC is minimum at inflection point of TVC Curve

3. When MC ↑S, TVC ↑S at ↑ing rate

Relationship b/w MC and TC

1. When MC falls, TC ↑s at diminishing rate
2. MC is minimum at inflection point of TC Curve
3. When MC ↑S, TC ↑S at ↑ing rate

Law of Returns to Scale

1. %input↑ < %output↑ = IRS
2. %input↑ = %output↑ = CRS
3. %input↑ > %output↑ = DRS

A firm Produces in the Short-run

But

Plans for Long-Run → Planning Period horizon

LONG RUN AVERAGE COST (LAC) CURVE

Long run is a period during which firm can vary all its inputs (Labour and Capital Both)

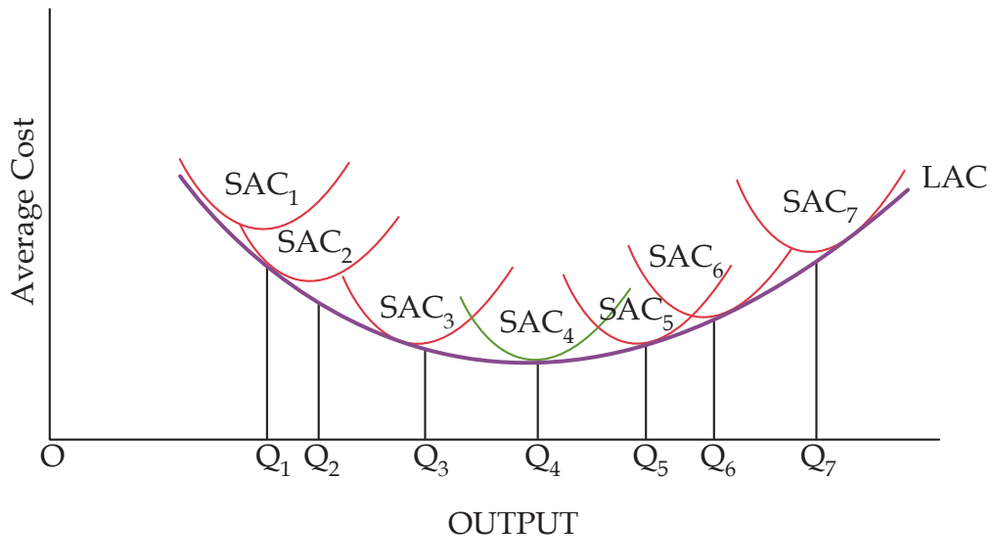
In the long run the firm can build any size or scale of plant and therefore, can move from one plant to another.

Long run is planning horizon.

Long run cost curve depicts functional relationship between output and long run cost of production.

A firm plans for the long run and operates in short run.

Long run cost of production is the least possible cost of producing any given level of output when all individual factors are variable.



When LAC is falling (-ve Slope)

1. Falling portion of LAC is tangent to the falling portion of SAC → under – Utilization

↓

Excess Capacity

2. There is IRS (Economies of Scale) when LAC curve falls (-ve Slope)

When LAC is rising (+ve Slope)

1. Rising portion of LAC is tangent to rising Portion of SAC → Over - Utilisation
2. There is DRS (Dis-Economies of Scale) when LAC curve rises (Positive Slope)

Questions

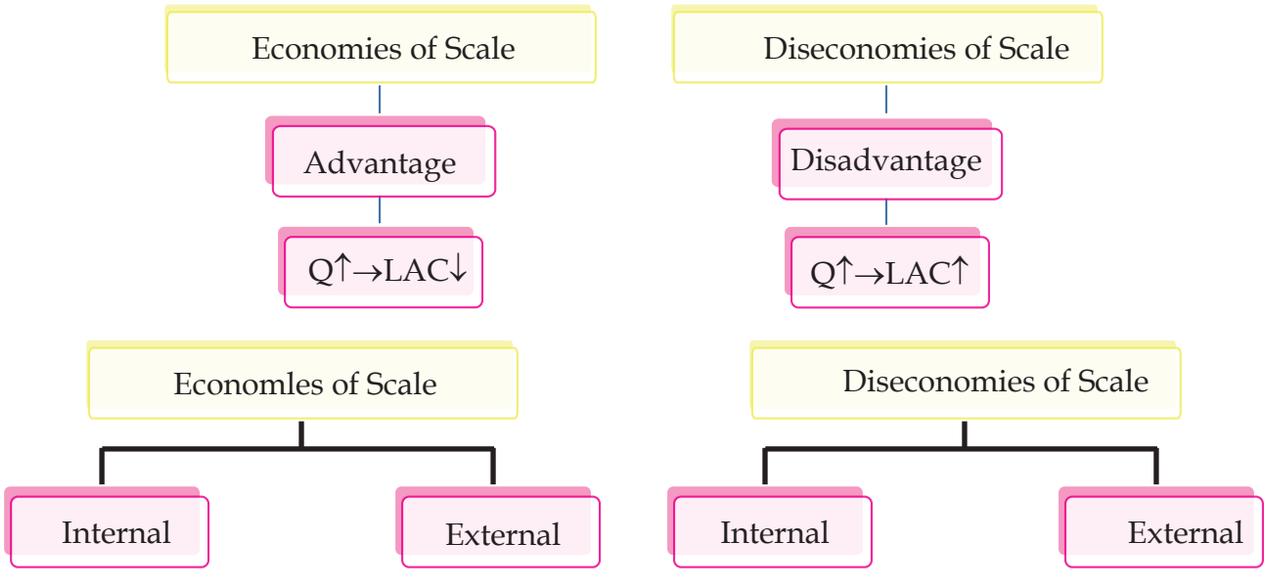
1. Planning curve is related to which of the following?
   (*a*) Short run average cost curve (*b*) Long run average cost curve
   (*c*) Average Variable Cost (*d*) Average Total Cost
2. Which of the following is known as Envelope Curve?
   (*a*) Marginal Cost Curve (*b*) Average Fixed Cost Curve
   (*c*) Long Run Average Cost Curve (*d*) Total Fixed Cost Curve
3. Which of the following statements concerning the long-run average cost curve is false?
   (*a*) It represents the least-cost input combination for producing each level of output
   (*b*) It is derived from a series of short-run average Cost curves
   (*c*) The short-run cost curve at the minimum point of the long-run average cost curve represents the least-cost plant size for all levels of output.
   (*d*) As output increases, the amount of capital employed by the firm increases along the curve
4. A firm's long-run average total cost curve is
   (*a*) Identical to its long-run marginal-cost curve as all factors are variable
   (*b*) Also its long-run total cost curve because it explains the relationship cost and quantity supplied
   (*c*) In fact the average total cost curve of the optimal plant in the short run as it tries to produce at least cost.
   (*d*) Tangent to all short-average total cost the curves and represents the lowest average total cost for producing each level of output
5. The positively sloped (Rising) part of the long run average cost curve indicates working of the _____.
   (*a*) Diseconomies of scale
   (*b*) Increasing returns to scale
   (*c*) Constant returns to scale
   (*d*) Economies of scale

Answers

1. (*b*) **2.** (*c*) **3.** (*c*) **4.** (*d*) **5.** (*d*)

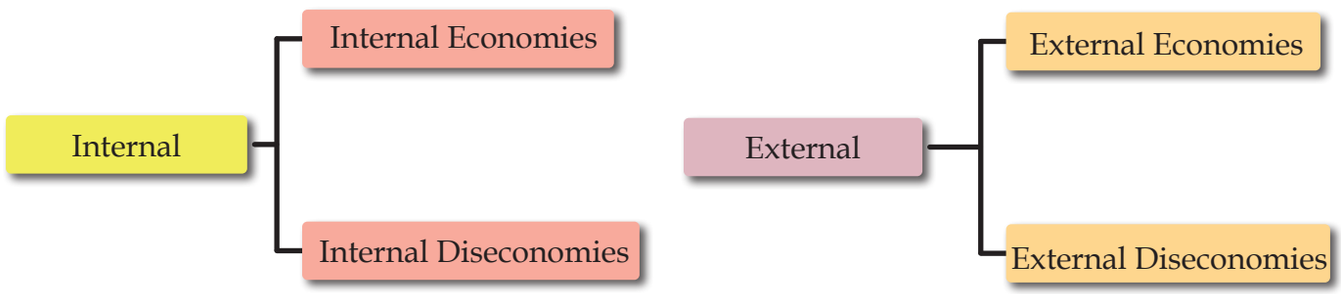
ECONOMIES OF SCALE

Economies of scale are cost advantages that enterprises obtain due to their scale of operation, with cost per unit of output decreasing which causes scale increasing.



Internal Economies	External Economies
Internal economies accrue to firm when it expands its output, so that cost of production would come down. Internal economies arise purely due to endogenous (internal) factors.	External economies are benefits accruing to each member firm of the industry as a result of expansion of the industry. They are not dependent on the output level of individual firms.

Internal Diseconomies	External Diseconomies
Beyond a certain limit of output a firm may suffer from internal dis-economies.	External dis-economies are disadvantages that originate outside the firm, especially in the input markets.



Internal Economies and Diseconomies

1. Technical: Machinery, Labour – Specialised
2. Managerial: Managerial economies refers to reduction in managerial cost.
3. Commercial: Raw material, Advertisement
4. Financial
5. Risk bearing

External Economies and Diseconomies

1. Cheaper raw materials and equipment.
2. Technological external economies.
3. Development of skilled labour.
4. Growth of ancillary industries.
5. Better transportation and marketing.
6. Economies of Information.

Questions

1. If LAC curve falls as output expands, this is due to:
   (*a*) Law of diminishing returns (*b*) Economics of Scale
   (*c*) Law of variable proportion (*d*) Diseconomics of Scale
2. External economies accrue due to _____:
   (*a*) Increasing returns to scale (*b*) Increasing returns to factor
   (*c*) Law of variable proportion (*d*) Low cost
3. External Economies arise due to:
   (*a*) Growth of ancillary industries
   (*b*) High cost of technologies
   (*c*) Increase in the price of factors of production
   (*d*) None of the above
4. External economies can be achieved through:
   (*a*) Foreign trade only
   (*b*) Superior managerial skills
   (*c*) Extension of transport and credit facilities
   (*d*) External assistance

Answers

1. (*b*) **2.** (*a*) **3.** (*a*) **4.** (*c*)

04 PRICE DETERMINATION IN DIFFERENT MARKETS

CONTENT OF THE CHAPTER

Unit-1: Meaning and Types of Markets
Unit-2: Determination of Prices
Unit-3: Price Output Determination under Different Market Forms

UNIT-1: MEANING AND TYPES OF MARKETS

CONCEPT OF REVENUE

Revenue is money received or sales realised by **selling** a commodity.

Profit = Total Revenue (TR) – Total Cost (TC)

Qty	Price	P × Q
1	10	10
2	10	20
3	10	30
4	10	40

1. TR = P × Q
= AR × Q
= ΣMR

2. MR = TRn – TRn-1
$= \frac{\Delta TR}{\Delta Q}$

3. AR = Price = $\frac{TR}{Q}$

Questions

1. Definition of revenue of a firm is
(*a*) Revenue is the money generated from business operations
(*b*) It is calculated as the average sale price times the number of units sold
(*c*) Option (*a*) and (*b*)
(*d*) Option (*a*) only

2. Total Revenue =

(*a*) Price × Quantity (*b*) Price × Income

(*c*) Income × Quantity (*d*) None of the Above

3. Which of the following is NOT a determinant of a firm's revenue?

(*a*) Price of the product (*b*) Quantity sold

(*c*) Costs of Production (*d*) Market Demand

4. Average revenue is the revenue earned _____.

(*a*) Per unit of input (*b*) Per unit of output

(*c*) Different units of input (*d*) Different units of output

5. AR can be symbolically written as:

(*a*) MR/Q (*b*) Price × Quantity = TR

(*c*) TR/Q (*d*) None of the above

6. Marginal Revenue is equal to:

(*a*) The change in price divided by the change in output

(*b*) The change in quantity divided by the change in price

(*c*) The change in P × Q due to a one unit change in output

(*d*) Price, but only if the firm is a price searcher

7. Marginal revenue can be defined as the change in total revenue resulting from the:

(*a*) Purchase of an additional unit of a commodity

(*b*) Sales of an additional unit of a commodity

(*c*) Sale of subsequent units of a product

(*d*) None of the above

8. When Geeta Joshi Ltd. sells 130 units @50 P.U., then the total revenue will be:

(*a*) 6,000 (*b*) 6,500

(*c*) 12,050 (*d*) 18,550

9. Assume that when the price is ₹20, the quantity demanded is 9 units, and when the price is ₹19, the quantity demanded is 10 units. Based on this information, what is the marginal revenue resulting from an increase in output from 9 units to 10 units?

(*a*) ₹20 (*b*) ₹19

(*c*) ₹10 (*d*) ₹1

10. Assume that when the price is₹20, the quantity demanded is 15 units, and when the price is ₹18, the quantity demanded is 16 units. Based on this information, what is the marginal revenue resulting from an increase in output from 15 units to 16 units?

(*a*) ₹18 (*b*) ₹16

(*c*) –12 (*d*) ₹28

11. At a price of ₹20, the quantity demanded is 10 units. With 5% decrease in price, the demand increases by 10%. The marginal revenue for the 11th unit will: **(Nov. 2019)**

(*a*) ₹20 (*b*) ₹12

(*c*) ₹9 (*d*) ₹11

12. Assume that when the price is ₹20, the quantity demanded is 9 units, and when the price is ₹19, the quantity demanded is 10 units. Based on this information, what is the marginal revenue resulting from an increase in output from 9 units to 10 units? **(Jan. 2025)**

(*a*) ₹20 (*b*) ₹19

(*c*) ₹10 (*d*) ₹1

13. When the price is ₹200, the quantity demanded is 10 units. Then the price decreases by 3%, and the quantity demanded increases by 20%. The marginal revenue will be: **(Dec. 2023)**

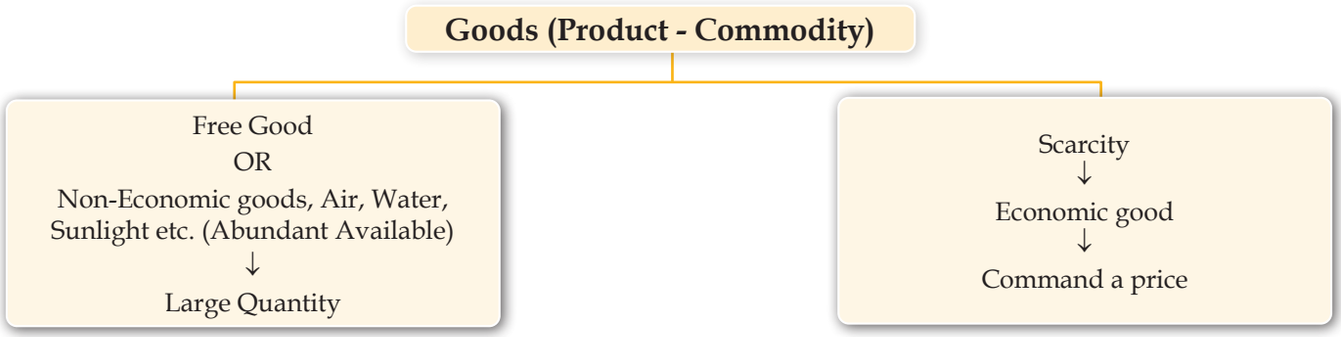
(*a*) ₹164 (*b*) ₹328

(*c*) ₹300 (*d*) ₹160

Answers

1. (*c*) **2.** (*a*) **3.** (*d*) **4.** (*b*) **5.** (*c*) **6.** (*c*) **7.** (*b*) **8.** (*b*) **9.** (*c*) **10.** (*c*)
11. (*c*) **12.** (*c*) **13.** (*b*)

GOODS/PRODUCT/ COMMODITY



Price → Value in Exchange or Exchange Value or Economic Value

As per Ricardo, Exchange value means command over commodities in general or power in exchange for purchasable commodities in general.

Value in use is different from value in exchange.

Value in use refers to the usefulness or utility. It is the attribute which a thing may have to satisfy human wants.

In Economics, we are only concerned with **exchange value**. Considerations such as sentimental value mean little in a market economy. Sentimental value is subjective and reflects an exaggerated judgment about the worth of a commodity.

For example, if a person says to his best friend that I like your car and if you give it to me, then I will be forever obliged to you. In this case, a lifetime obligation is a sentimental value and has no meaning against monetary consideration.

MEANING OF MARKET

A market is a **collection of buyers and sellers** with the **potential/possibility to trade.**

We can define the market simply as all those buyers and sellers who influence price.

A market **need not be formal** or require a particular place.

Eg., 2nd-hand goods are often sold through online platforms.

Elements of Markets

1. **Buyers** and **sellers**;
2. A **product** or service;
3. **Bargaining** for a price;
4. **Knowledge** about market conditions; and
5. Particular Price for a product/service at a given time.

Question

1. In Economics, the term 'Market' Refers to a.
   (*a*) Place where the buyer and seller bargain for a product or service at a price.
   (*b*) Place where the buyer does not bargain.
   (*c*) Place where the seller does not bargain.
   (*d*) None of the above

Answer

1. (*a*)

GENERAL CLASSIFICATION

1. **Factor Market:** Market in which **firms buy the resources (Inputs) to produce goods.** Prices in factor markets – **factor Prices**
2. **Product Markets:** Markets in which **households buy goods they want from firms.**

TYPES OF MARKET

Markets Can be Classified on the Basis of

1. Area – Location
2. Time
3. Nature of Transaction
4. Regulation
5. Volume of business and
6. Types of Competition

KINDS OF MARKETS – ON THE BASIS OF GEOGRAPHICAL AREA

1. Local Markets
2. Regional Markets
3. National Markets
4. International Markets

Kinds of Markets – on the Basis of Competition

1. **Local Market:** Here, buyers and sellers are **limited to a local area or region.**
   Highly perishable goods and **bulky articles** are sold in this market.
   Also, it is limited to a particular locality.
   Eg.: Locally supplied services – **hairdressers** and **retailers have a narrow customer base.**





2. **Regional Market:** They cover a **wider area,** such as a **few adjacent cities, parts of states, etc.**
   Eg: Mekhela Chador (Assamese Saree), Yewle Tea etc.







3. **National Markets:** When **demand** is **limited to the national boundaries of a country.**
   The **trade policy** of the government **may restrict trading** of a commodity within the country.
   Eg: Hindi books - National markets in India.
4. **International Markets: High value and small bulk** commodities are demanded and traded internationally.
   Eg: Gold and **Silver.**
   Note: The above classification has become outdated as in modern days even perishable goods have an international market.

Kinds of Markets – On the basis of Time

1. Very short Period Market
2. Short period market
3. Long Period Market
4. Very long period market/Secular Market

Alfred Marshall conceived the **'Time'** element in markets.

1. **Very Short Period Market:** very short period is also known as **Market period - here supply is fixed - it means supply cannot be increased or decreased.**
   Eg: Market of perishable products like vegetables, flowers, fruits, etc.
2. **Short Period Market: Slightly longer than very short period**. Here, **supply** can be **moderately adjusted.**
3. **Long-Period Market:** In long period, **all factors become variable** and **supply** can be **fully adjusted to changes in demand** by **altering scale of production.**
   The **interaction** between **long run demand and supply determines equilibrium price** or **'normal price'**.
4. **Very long-period (Secular period) Market.**

Questions

1. The secular period is also known as
   (*a*) Very short period
   (*b*) Short period
   (*c*) Very Long Period
   (*d*) Long Period
2. In a very short period market:
   (*a*) The supply is fixed
   (*b*) The demand is fixed
   (*c*) Demand and supply are fixed
   (*d*) None of the above

Answers

1. (*c*) **2.** (*a*)

Kinds of Markets – On the basis of the Nature of Transaction

1. **Spot/Cash Market:** Goods are exchanged for **money payable** either **immediately** or within **short span of time.**
2. **Forward or Future Market:** Transactions involve contracts with a **Promise to pay and deliver** goods **at some future date.**

Kinds of Markets – On the basis of Regulation

1. **Regulated Markets:** Like, Stock exchange which is regulated by SEBI, Insurance Market - IRDA.
2. **Unregulated Markets:** Any other free market.

Question

1. Stock exchange market is an example of
   (*a*) Unregulated Market
   (*b*) Regulated Market
   (*c*) Spot Market
   (*d*) None of the above

Answer

1. (*b*)

Kinds of Markets – On the basis of Volume of Business

1. **Wholesale Market: This is a market where** Goods are sold in **bulk or large quantities.** Transactions **between traders take place.**
2. **Retail Market: This is a market** where goods are sold in **Small Quantities.** This is the market **for ultimate consumers.**





Question

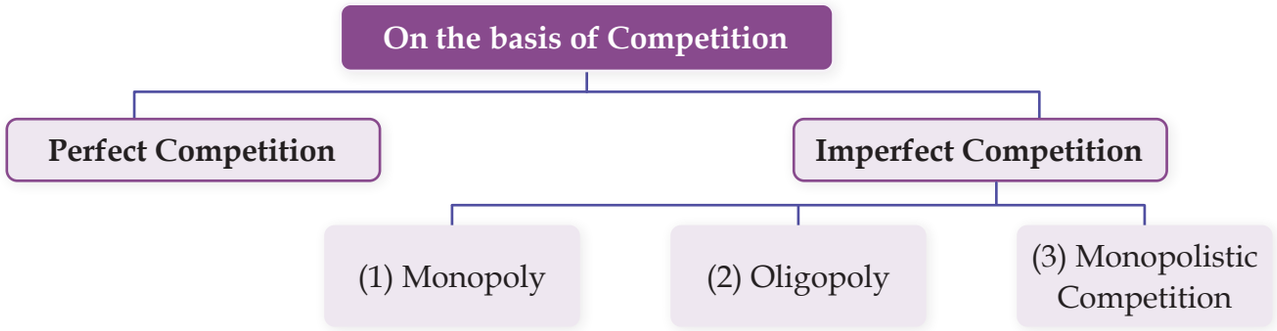
1. The market for the ultimate consumers is known as:

(*a*) Wholesale market - Traders
(*b*) Regulated Market
(*c*) Unregulated Market
(*d*) Retail Market

Answer

1. (*d*)

Kinds of Markets – On the Basis of Competition



CLASSIFICATION OF MARKETS (SUMMARY)

In Economics, Generally the classification of markets is made on the basis of

Area	Time	Nature of Transaction	Regulation	Volume of Business	Types of Competition
Local Market	Very Short Period	Spot Market	Regulated Market	Wholesale Market	Perfectly Competitive
Regional Market	Short Period	Future Market	Unregulated Market	Retail Market	Imperfectly Competitive
National Market	Long Period				
International Market	Very Long/ Secular				

Questions

1. In Ricardo's View what does "Exchange Value" Represent? **(Sept. 2024)**

(*a*) The cost of production of a commodity
(*b*) The subjective preferences of individuals
(*c*) Power in exchange for purchasable commodities in general
(*d*) The quantity of labour embodied in a commodity

2. A very short period market is suitable for which of the following products? **(June 2022)**

(*a*) Gold and Silver
(*b*) Vegetables and fruits
(*c*) Bricks and Sand
(*d*) Supply of Capital

3. On the basis of nature of transactions, market can be Classified as _____. **(July 2021)**

(*a*) Wholesale market and retail market
(*b*) Future market and spot market
(*c*) Regulated market and unregulated market
(*d*) Money market and futures market

4. When e > 1, then MR is

(*a*) Zero
(*b*) Negative
(*c*) Positive
(*d*) One

5. When e = 1, then MR is

(*a*) Positive
(*b*) Zero
(*c*) One
(*d*) Negative

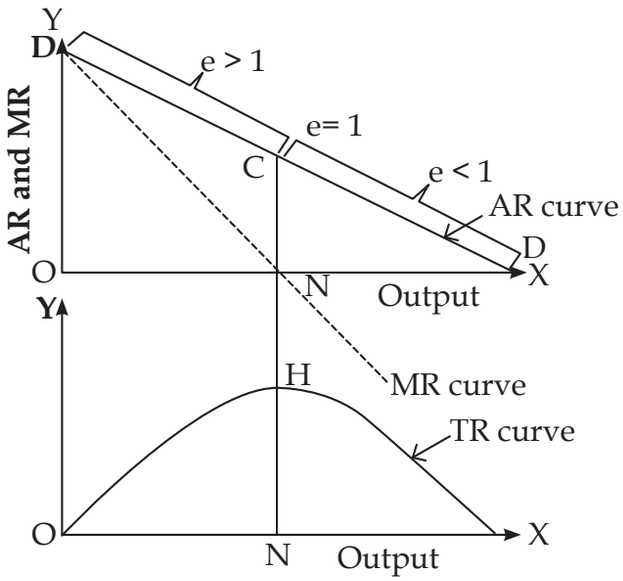
6. When e < 1, then MR is

(*a*) Negative
(*b*) Zero
(*c*) Positive
(*d*) One

Answers

1. (*c*) **2.** (*b*) **3.** (*b*) **4.** (*c*) **5.** (*b*) **6.** (*a*)

Relationship Between AR, MR, TR and Price Elasticity of Demand



Question

1. Given, AR = 5 and Elasticity of Demand = 2 Find MR. **(CA CPT June 2013, Jan. 2021)**

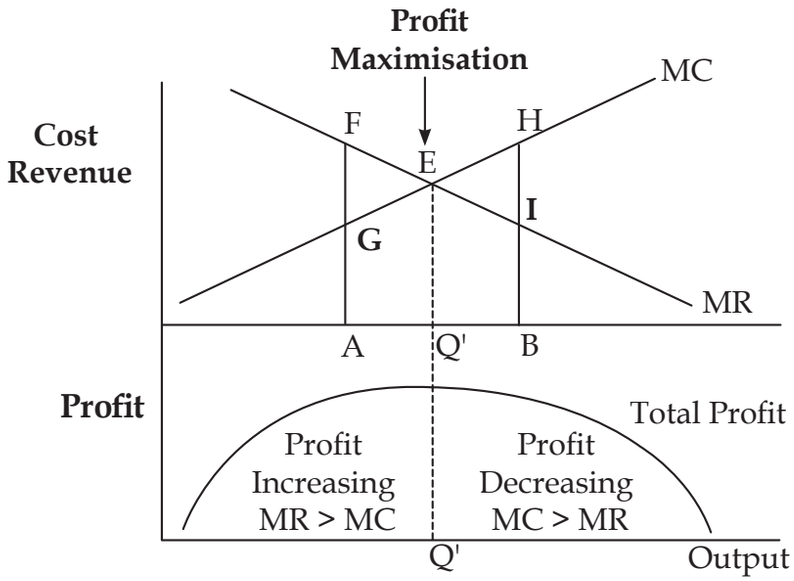
(*a*) +2.5
(*b*) -2.5
(*c*) +1.5
(*d*) +2.0

Answer

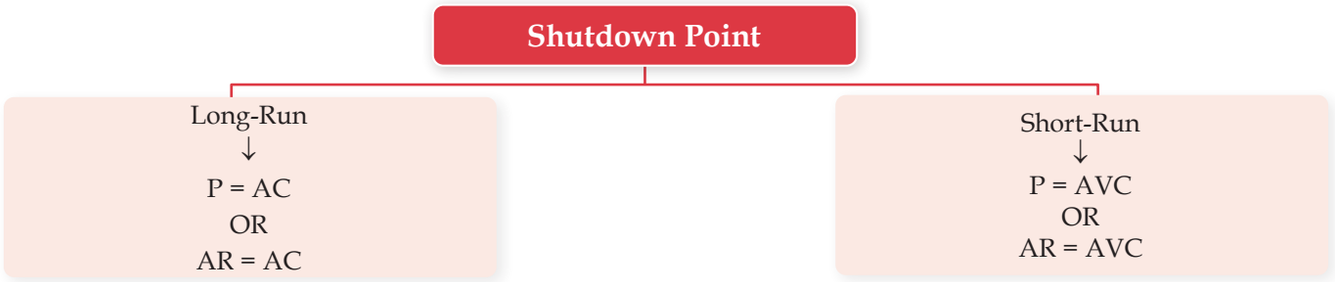
1. (*a*)

TWO BEHAVIOURAL PRINCIPLES

1. A firm should not produce at all if its total variable costs are not met/covered.
2. A firm will maximise profit (or minimise losses) at MR = MC.



Shutdown Point



Principle 1

- A firm should **not produce** at all if its total revenues are not enough to cover **Total Variable Costs**
- When AR = AVC → Shutdown Point
- Shutting down is **temporary** and does not mean going out of business

At shutdown point:

- Price is equal to AVC → P = AVC
- TR = TVC
- Total loss = TFC

Principle 2

- A firm will **maximise profits** (Or minimise losses) by expanding output to the level where **MR = MC**

Questions

1. Suppose a firm is producing a level of output such that MR > MC, what should the firm do to maximise its profits?

(*a*) The firm should do nothing
(*b*) The firm should hire less labour
(*c*) The firm should increase price
(*d*) The firm should increase output

2. When Total Revenue (TR) is at the Peak, marginal Revenue is equal to: **(Nov. 2019)**

(*a*) Zero
(*b*) Positive
(*c*) Negative
(*d*) More than one

3. AR is also known as:

(*a*) Price
(*b*) Income
(*c*) Revenue
(*d*) None of the above

4. Average Revenue curve is also known as:

(*a*) Profit Curve
(*b*) Demand Curve
(*c*) Average Cost Curve
(*d*) Indifference Curve

5. A firm encounters its "Shutdown Point" when:

(*a*) Average total cost equals price at the profit – maximising level of output
(*b*) Average variable cost equals price at the profit – maximising level of output
(*c*) Average fixed cost equals price at the profit – maximising level of output
(*d*) Marginal cost equals price at the profit – maximising level of output

6. When should a competitive firm consider shutting down its operations? **(Sept. 2024)**

(*a*) When the price is above Total Variable Costs (TVC).
(*b*) When the price is below Average Variable Costs (AVC).
(*c*) When the price is equal to Total Revenue (TR).
(*d*) When the Price is constant.

7. If Marginal Revenue (MR) for Unit 1 is ₹10, for Unit 2 is ₹5 and for Unit 3 is ₹3, then what will be the amount of Total Revenue (TR)? **(Sept. 2024)**

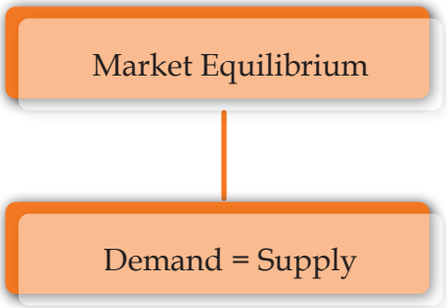
(*a*) ₹15
(*b*) ₹10
(*c*) ₹8
(*d*) ₹18

8. When price is ₹200, quantity demanded is 10 units. Then price decreased by 3% and quantity demanded increased by 20%. The marginal revenue will be: **(Dec. 2023)**

(*a*) ₹164
(*b*) ₹328
(*c*) ₹300
(*d*) ₹160

Answers

1. (*d*) **2.** (*a*) **3.** (*a*) **4.** (*b*) **5.** (*b*) **6.** (*b*) **7.** (*d*) **8.** (*a*)



	Situation	Impact/Effect on	
		Equilibrium Price	Equilibrium Quantity
(a)	Increase in Demand	P↑	Q↑
(b)	Decrease in Demand	P↓	Q↓

	Situation	Effect on	
		Equilibrium Price	Equilibrium Quantity
(a)	Increase in Supply	P↓	Q↑
(b)	Decrease in Supply	P↑	Q↓

Questions

1. It is assumed in economic theory that:

(*a*) Decision making within the firm is usually undertaken by managers, but never by the owners.

(*b*) The ultimate goal of the firm is to maximise profits, regardless of firm size or type of business organization.

(*c*) As the firm's size increases, so do its goals.

(*d*) The basic decision making unit of any firm is its owners.

2. With a given supply curve, a decrease in demand causes:

(*a*) An overall decrease in price but an increase in equilibrium quantity.

(*b*) An overall increase in price but a decrease in equilibrium quantity.

(*c*) An overall decrease in price and a decrease in equilibrium quantity.

(*d*) No change in overall price, but a reduction in equilibrium quantity.

Answers

1. (*b*) **2.** (*c*)

Simultaneous Change in Both DD and SS

1. D↑ S↑
2. D↓ S↓
3. D↑ S↓
4. D↓ S↑

Simultaneous Increase in Both DD and SS

1. D↑ = S↑
2. D↑ > S↑
3. D↑ < S↑

S. No.	Situation	Effect on	
		Equilibrium Price	Equilibrium Quantity
1.	Increase in Demand is equal to Increase Supply D↑ = S↑	Remain Same	Q↑
2.	Increase in demand is greater than Increase in Supply ↑D > ↑S	P↑	Q↑
3.	Increase in Demand is less than Increase in Supply ↑D < ↑S	P↓	Q↑
4.	Decrease in Demand is equal to Decrease in Supply D↓= S↓	Remain Same	Q↓
5.	Decrease in Demand is less than Decrease in Supply D↓ < S↓	P↑	Q↓
6.	Decrease in Demand is greater than Decrease in Supply D↓ > S↓	P↓	Q↓
7.	Increase in Supply is equal ↓ demand ↑S = ↓D	P↓	Remain Same
8.	Increase in Supply is greater than ↓ in demand ↑S > ↓D	P↓	Q↑
9.	Increase in Supply is less than ↓ in demand ↑S < ↓D		
10.	Decrease in Supply is equal ↑ in demand ↓S = ↑D	P↑	Remain Same
11.	Decrease in Supply is less than ↑ in demand ↓S > ↑D	P↑	Q↓
12.	Decrease in Supply is greater than ↑ in demand ↓S < ↑D	P↑	Q↑

- When **both demand and Supply Increase and** no other info given, then **Equilibrium Quantity Increases,** but effect on Equilibrium Price cannot be confirmed.
- Similarly, when **both demand and supply decrease,** and no other info given then **Equilibrium Quantity Decreases,** but effect on Equilibrium Price Cannot be Confirmed.
- When DD and ss both either ↑ or ↓ Simultaneously in Same Proportion then Equilibrium Price will remain Constant.

Questions

1. If supply increases in a greater proportion than demand:
   (*a*) The new equilibrium price and quantity will be greater than the original equilibrium price and quantity.
   (*b*) The new equilibrium price will be greater than the original equilibrium price, but equilibrium quantity will be higher.
   (*c*) The new equilibrium price and quantity will be lower than the original equilibrium price and quantity.
   (*d*) The new equilibrium price will be lower than the original equilibrium, and the new equilibrium quantity will be higher.

2. Assume that consumers' incomes and the number of sellers in the market for good A both decrease. Based upon this information, we can conclude, with certainty, that the equilibrium:
   (*a*) Price will increase
   (*b*) Price will decrease
   (*c*) Quantity will increase
   (*d*) Quantity will decrease

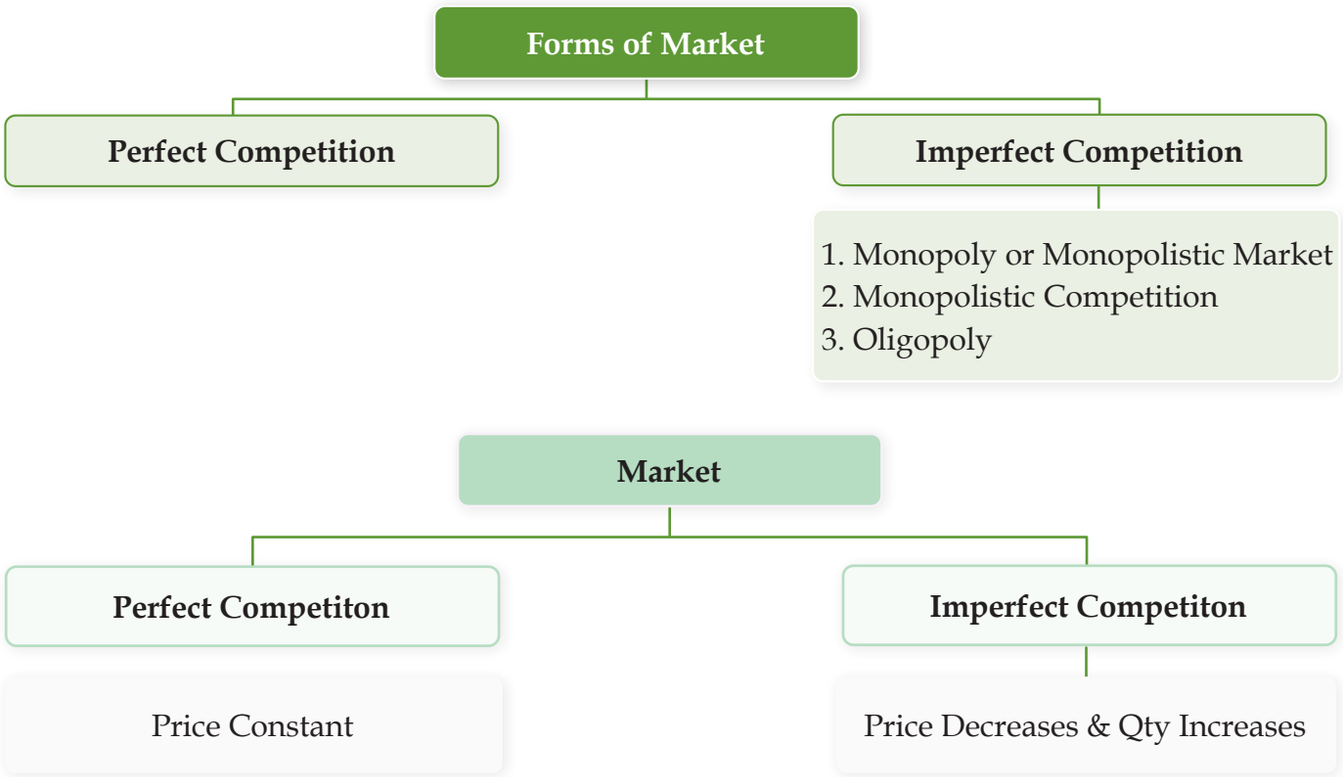
3. Assume that in the market for good Z, there is a simultaneous increase in demand and the quantity supplied. The result will be:
   (*a*) An increase in equilibrium price and quantity.
   (*b*) A decrease in equilibrium price and quantity.
   (*c*) An increase in equilibrium quantity and uncertain effect on equilibrium price.
   (*d*) A decrease in equilibrium price and increase in equilibrium quantity.

4. Suppose the technology for producing personal computers improves and at same time, individuals discover new uses for personal computers so that there is greater utilisation of personal computers.
   Which of the following will happen to equilibrium price and equilibrium quantity?
   (*a*) Price will increase; quantity cannot be determined.
   (*b*) Price will decrease; quantity cannot be determined.
   (*c*) Quantity will increase; price cannot be determined.
   (*d*) Quantity will decrease; price cannot be determined.

Answers

1. (*d*) **2.** (*d*) **3.** (*c*) **4.** (*c*)

UNIT-3: PRICE OUTPUT DETERMINATION UNDER DIFFERENT MARKET FORMS



MONOPOLY

The word "Monopoly" means "alone to sell"

Monopoly is a situation in which there is a single seller of a product which has no close substitute.

Pure monopoly is never found in practice. However, in public Utilities such as transport, water and electricity, we generally find a Monopoly Form of Market.

Mono + Poly = Monopoly

↓ ↓ ↓

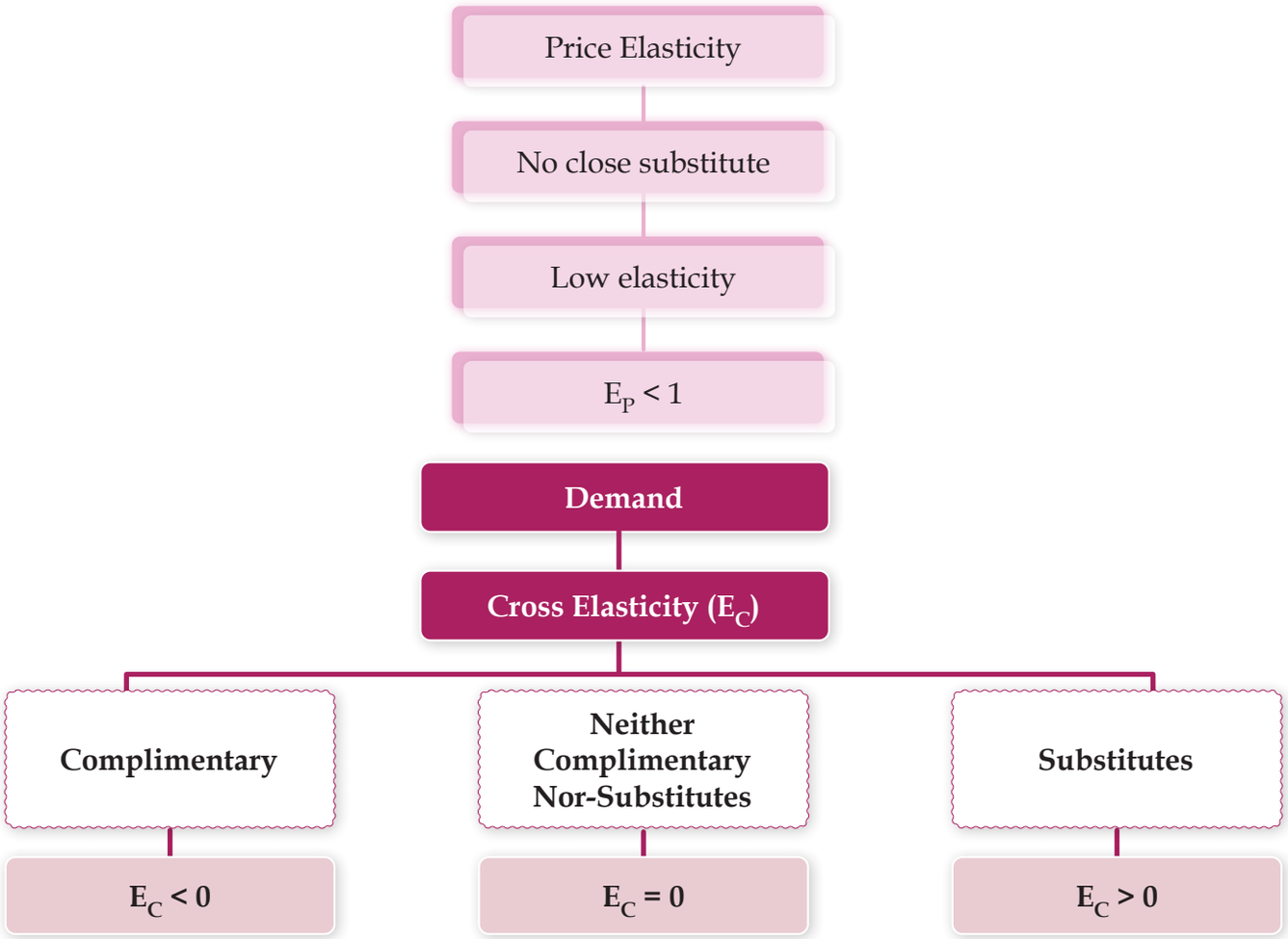
Single Firm a seller alone

Market = Industry = Collection of all firms

Monopoly → a single firm is Industry/Market

Features of Monopoly Market

1. **Single seller of the product:**
   - (*a*) In a monopoly market, there is only one firm producing or supplying a product.
   - (*b*) This single firm constitutes the industry, and as such there is no distinction between firm and industry in a monopolistic market.
   - (*c*) Monopoly is characterised by an **absence of competition.**
2. **Barriers to Entry:** In a monopoly market, there are strong barriers to entry. The barriers to entry could be economic, institutional, legal or artificial.



3. No Close-Substitutes:

(*a*) A monopoly firm has full control over the market supply of a product or service. A monopolist is a price maker and not a price taker

(*b*) The monopolist generally sells a product which has no close substitutes. In such a case, the cross elasticity of demand for the monopolist's product and any other product is **zero or very small.**

(*c*) The price elasticity of demand for Monopolist's product is also **less than one.** As a result, the monopolist faces a downward sloping demand curve.

4. Market Power: A monopoly firm has market power, i.e., it has the ability to charge a price above marginal cost and earn a positive profit.

Who can Create Monopoly?

- Govt.
- Scarce Resource
- Goodwill - WhatsApp
- Patent Right
- Cartel – Group

Causes of Monopoly Market

Fundamental cause of monopoly is "barriers to entry", i.e. other Firms cannot enter the market. Some reasons for occurrence and continuation of Monopoly are:

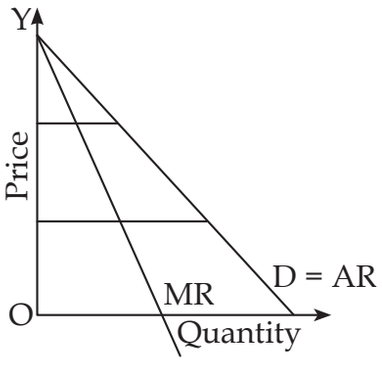
1. Strategic Control over scarce resources, inputs or technology by a Single Firm, thereby limiting the access of other Firms to these resources.
2. Developing or acquiring control over a unique product that is difficult or costly for other Companies to copy.
3. Patents and copyrights given by Government to protect Intellectual Property Rights and to encourage innovation.
4. Governments granting exclusive rights to produce and sell a good or a service.

How do Monopolies Arise?

1. Substantial Goodwill enjoyed by a Firm for a considerably long period, which Creates difficult barriers to entry like WhatsApp.
2. Natural Monopoly due to very large economies of scale. Suppose, a Single Firm is able to produce the industry's Whole output at a lower unit cost than two or more Firms could. In such case, it is often wasteful (for Consumers and the economy) to have more than one such Supplier because of the high costs of duplicating the infrastructure, e.g. Telephone Service, Natural Gas Supply, Electrical Power Distribution, etc.
3. Stringent Legal and Regulatory Requirements that effectively discourage entry of New Firms without being specifically prohibited.
4. Very high start-up costs required to enter the market in a modest way and requirement of extraordinarily costly and sophisticated technical Know-how, may discourage new firms from entering the market.
5. Use of Anti-Competitive Practices or Predatory Tactics, (e.g. Limit pricing or Predatory Pricing) intended to do away with existing or potential competition.
6. Business Combinations or Cartels where former Competitors co-operate on pricing or market share. **(Note: Cartel is illegal in most countries)**

Revenue curves under Monopoly

1. Both AR and MR are negatively sloped (Downward sloping) curves.
2. The slope of the MR curve is twice that of the AR curve. The MR curve lies half- way between the AR curve and the Y axis. i.e., it cuts the horizontal line between the Y axis and AR into two equal parts.
3. AR cannot be zero, but MR can be zero or even negative.



Questions

1. A monopolist is a
   (*a*) Price Maker
   (*b*) Price Taker
   (*c*) Price Adjuster
   (*d*) None of the above

2. Under Monopoly, the degree of control over price is:
   (*a*) None (*b*) Very Considerable
   (*c*) Some (*d*) None of the above
3. A natural monopoly arises when
   (*a*) There is enormous goodwill enjoyed by a firm
   (*b*) There are stringent legal and regulatory requirements
   (*c*) There are very large Economies of Scale
   (*d*) There are Business Combinations and Cartels

Answers

1. (*a*) **2.** (*b*) **3.** (*c*)

Economic Effect of Monopoly

1. Monopoly is often criticised because it reduces aggregate economic welfare through loss of productive and allocative efficiency.
2. Monopolists charge substantially higher prices and produce lower levels of output than would exist if the product were produced by competitive firms.
3. Monopolists can earn economic profits in the long run which are unjustifiable.
4. Monopoly price exceeds marginal costs and therefore reduces consumer surplus. There is a transfer of income from the consumers to the monopolists. Not only do consumers pay higher prices, but they also are not able to substitute the good or service with a more reasonably priced alternative.
5. Monopoly restricts consumer sovereignty and consumers' opportunities to choose what they desire.
6. Monopolists may use unjust means for creating barriers to entry to sustain their monopoly power. They often Spend a huge amount of money to maintain their monopoly position. This leads to an increase in average total cost producing a product.
7. A monopolist having substantial financial resources is in a powerful position to influence the political process in order to obtain favourable legislation.
8. Very often, monopolists do not have the necessary incentive to introduce efficient innovations that improve product quality and reduce production costs.
9. Monopolies are able to use their monopoly power to pay lower prices to their suppliers.
10. The economy is also likely to suffer from 'X' inefficiency, which is the loss of management efficiency associated with markets where competition is limited or absent.

Types of Monopolies

Simple Monopoly	Discriminating Monopoly
Charge Same Price from all Buyers Google, WhatsApp, Postal Charge	Electricity Residential – Low Price Commercial – High Price

PRICE DISCRIMINATION

It is a practice of charging different Prices from different buyers for Same Product.

Question

1. If the electricity department is charging ₹3 per unit to farmers and ₹7 per unit to industries, it is described as **(June 2024)**

   (*a*) Product differentiation (*b*) Price discrimination

   (*c*) Monopoly (*d*) Differentiation Activity

Answer

1. (*b*)

Conditions for Price Discrimination

1. 1st Degree →
2. 2nd Degree →
3. 3rd degree →

First Degree (Customer Wise)

It is about separating the market into each individual consumer and charging them different prices (Extract entire consumer surplus)

Eg: Doctors and Lawyers charging different fees to their customers.

Second Degree (Quantity Wise)

There are two possibilities here:

1. **Larger quantities available at lower unit price.**

   Eg: Family pack of soaps or biscuits tends to cost less per kg than smaller packs.

2. **Each consumer pays different price for consecutive purchases.**

   Eg: Mobile sim service charges higher internet prices when consumption exceeds a particular limit.

Third Degree (Attribute Wise)

Price varies by attributes → location or customer segment

Divide consumers into separate sub-market and charge different prices in different sub-markets.

Eg: Dumping, charging, different prices for domestic and commercial uses, lower prices in railways for senior citizens, etc.

Objectives of Price Discrimination

1. To earn maximum profit
2. To dispose of surplus stock
3. To enjoy economies of scale → Advantage → Q↑ → LAC↓
4. To capture foreign markets → dumping
5. To secure equity through pricing

Conditions for Price Discrimination

1. **Full Control Over Supply:** Price discrimination is applicable only in a monopoly situation, where there is full control over the supply, and there are no rival firms.
2. **Division of the market into two or more sub-markets.**
3. **Different price elasticity under different markets:**

   Less Elastic DD → high price

   More Elastic DD → low price
4. **No Possibility to Resale:** It should not be possible for the buyers of low-priced market to resell the product to the buyers of the high priced market. i.e., No. Possibility of Arbitrage.

Questions

1. Price discrimination is one of the features of:
   (*a*) Monopolistic competition (*b*) Monopoly
   (*c*) Perfect competition (*d*) Oligopoly
2. When the monopolist divides the consumers into separate sub markets and charges different prices in different sub-market it is known as:
   (*a*) First degree of price discrimination
   (*b*) Second degree of price discrimination
   (*c*) Third degree of price discrimination
   (*d*) None of the above
3. Under _____ the monopolist will fix a price which will take away the entire consumer's surplus.
   (*a*) Second degree of price discrimination (*b*) First degree of price discrimination
   (*c*) Third degree of price discrimination (*d*) None of the above
4. Price discrimination is related to:
   (*a*) Time (*b*) Size of the purchase
   (*c*) Income (*d*) Any of the above
5. Price varies by attributes such as location or by customer segment is _____ degree of price discrimination.
   (*a*) First (*b*) Second
   (*c*) Third (*d*) Fourth

Answers

1. (*b*) **2.** (*c*) **3.** (*b*) **4.** (*d*) **5.** (*c*)

Profit

P = AC → Normal Profit

P > AC → Positive Economic Profit OR Supernormal/Abnormal Profit

P < AC → Losses OR Negative Economic Profit

Questions

1. When _____, we know that the firms are earning just normal Profits.

(*a*) AC = AR (*b*) MC = MR

(*c*) MC = AC (*d*) AR = MR

2. If the average cost is higher than the average revenue then the firm incurs _____.

(*a*) Normal Profit (*b*) Abnormal Profit

(*c*) Loss (*d*) No Profit, No Loss

Answers

1. (*a*) **2.** (*c*)

EQUILIBRIUM OF FIRM

A Situation where a firm is doing its best → Maximum Profit OR Minimising Losses

Equilibrium of Firm → Two Conditions

1st Order Condition: MR = MC

2nd Order condition:

MC Curve must cut MR curve from below

OR

MC must be rising after MR = MC

OR

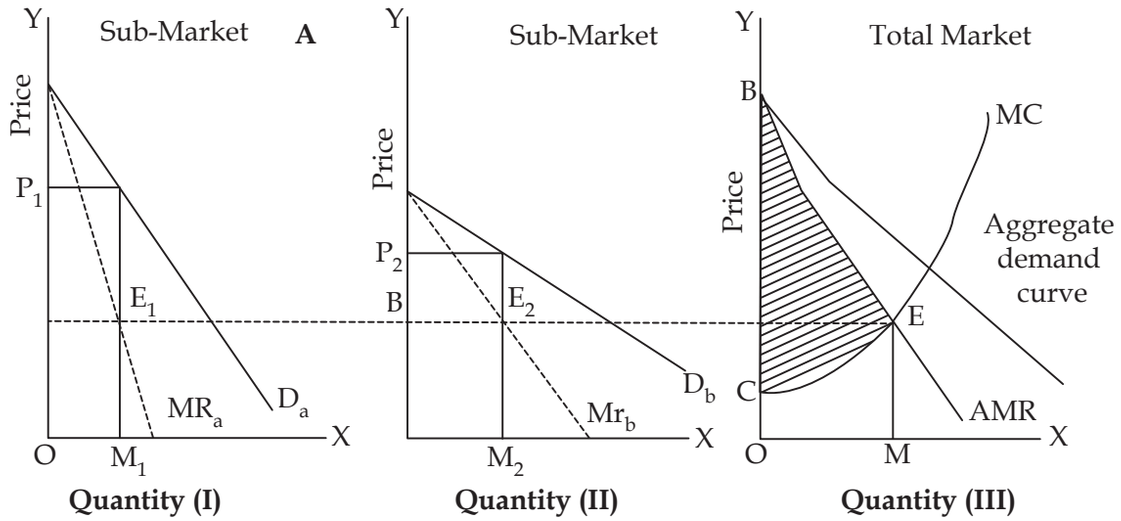
MC > MR after MR = MC

Equilibrium Under Monopoly

Monopoly

Short-Run
1. Normal Profit (P = AC)
2. Loss (P < AC)
3. Super Normal Profit (P > AC)

Long Run
Super Normal Profit
P > AC



Price Determination in Different Markets

Question

1. Conditions for equilibrium of a firm are:
   (*a*) MR = MC
   (*b*) MC should cut MR from below
   (*c*) MR = AR and MC should cut MR from below
   (*d*) MR = MC and MC should have a positive slope

Answer

1. (*a*)

MONOPOLISTIC COMPETITION



In this Market, Many sellers are selling a product which is different in Height, weight, Color, Size, Shape etc.

Questions

1. A market structure in which many firms sell products that are similar but not identical is known as:
   (*a*) Monopolistic Competition (*b*) Monopoly
   (*c*) Perfect Competition (*d*) Oligopoly
2. Monopolistic Competition is characterised by: **(Sept. 2024)**
   (*a*) Many sellers selling identical products to many buyers.
   (*b*) Many sellers selling differentiated products to many buyers.
   (*c*) Few sellers selling identical products to many buyers.
   (*d*) Few sellers selling competing products to selective buyers.

Answer

1. (*a*) 2. (*b*)

Features of Monopolistic Competition

1. **Large Number of Sellers:** In a monopolistically competitive market, there are large number of independent firms who individually have a small share in the market.
2. **Product Differentiation:** → Heterogeneous Product → Elastic Demand.

3. **Freedom of Entry and Exit:** Barriers to entry are comparatively low and new firms are free to enter the market if they find profit prospects and existing firms are free to quit.
4. **Non-price Competition:** → Competition is based on **Advertisement – Promotion**

Questions

1. Which of the following is not a characteristic of a monopolistically competitive market?
   (*a*) Free entry and exit (*b*) Abnormal profits in the long run
   (*c*) Many sellers (*d*) Differentiated Products
2. 'Zero economic Profit' Emerges due to which of the follow in condition? **(July 2021)**
   (*a*) Average revenue is more than average total cost
   (*b*) Average revenue is just equal to average total cost
   (*c*) Marginal revenue is just equal to average total cost
   (*d*) Marginal revenue is just equal to marginal cost
3. When AR = ₹10 and AC = ₹8 the firms makes _____. **(CA CPT May 2007)**
   (*a*) Normal Profit (*b*) Net Profit
   (*c*) Gross Profit (*d*) Super Normal Profit
4. Tooth Paste industry is an example of _____. **(CA CPT Dec. 2010)**
   (*a*) Monopoly (*b*) Monopolistic Competition
   (*c*) Oligopoly (*d*) Perfect Competition
5. Which of the following is an example of monopolistic competition?
   (*a*) De Beers and Diamond (*b*) Hotels and Pub
   (*c*) Microsoft and Windows (*d*) Dell and Lenovo

Answers

1. (*b*) **2.** (*b*) **3.** (*d*) **4.** (*b*) **5.** (*b*)

OLIGOPOLY

- Oligopoly → **'Competition among a few sellers'**
- **Examples: Airlines, Telephone connection, Petroleum Refining, Power Generation, Cold drinks, Automobile** and **Internet Service Providers etc.**

Question

1. Three major smartphone manufacturers, Alpha Tech, Beta Mobile and Gamma Gadgets, dominate the smartphone market. These companies are in constant competition for market share and innovation. Which type of the market structure has been described in this scenario?
   (*a*) Oligopoly (*b*) Monopoly
   (*c*) Perfect Competition (*d*) Monopolistic Competition

Answer

1. (*a*)

Game Theory in Oligopoly

1. Strategic Interdependence	Each seller is **big enough to influence the market.** A firm has to **necessarily respond to its rival's actions** and simultaneously, **rivals also respond to the firm's actions.**
2. Importance of advertising and selling costs	Firms use **aggressive and defensive marketing** weapons to **gain greater market share.** Firms **avoid price cutting** and try to compete **on non-price** basis.
3. Group Behaviour	**No generally accepted theory** of group behaviour. Firms may agree to behave together as a group in their common interest. May or may not have a leader.

Types of Oligopoly

1. Pure and Impure Oligopoly	**Pure oligopoly or perfect oligopoly** is a firm under oligopoly selling a **homogeneous product,** e.g., petroleum, steel and aluminium industry.
	Differentiated or imperfect oligopoly occurs when goods sold is based on **product differentiation,** e.g., Talcum Powder.
2. Open and Closed Oligopoly	**Open Oligopoly → New firms can enter** market and compete with existing firms.
	In closed oligopoly **Entry is restricted**
3. Collusive and Competitive Oligopoly	When few firms of oligopoly market come to common understanding → **deciding on price or output or both together,** it is collusive oligopoly.
	When such an understanding is absent among the firms and they compete with each other, it is called competitive oligopoly
4. Partial and Full	Oligopoly is partial when **industry is dominated by one large firm** → looked upon as **leader** of group Dominating firm will be **Price Leader.**
	Full Oligopoly → **Absence of Price Leadership.**
5. Syndicated and Organised Oligopoly	Syndicated oligopoly → Firms **sell** their products **through a centralised syndicate.**
	Organised Oligopoly → Firms organise themselves into a **central association** for **fixing prices, output, quotas** etc.

Question

1. The talcum powder market is an example of which of the following markets?

(*a*) Imperfect Oligopoly (*b*) Collusive Oligopoly

(*c*) Open Oligopoly (*d*) Close Oligopoly

Answer

1. (*a*)

Oligopoly Demand curve cannot determined fully **Monopoly** No Supply curve. Why? Price discrimination.

Oligopoly Models

1. **Ignore** firm's **interdependence**
2. (a) Cournot model → **firm's control variable** is **output.** They do **not collude.**
   (b) Stakelberg's model **leader decides** output and rest of firms are **followers**
   (c) Bertrand model, **price** is **control variable**
3. **Enter into agreement** and try to **pursue their common interests. Eg: OPEC**

KINKED DEMAND CURVE

- As per **Paul A. Sweezy,** prices in oligopolistic industries **remain sticky** or **inflexible.**
- Price rigidity under oligopoly is explained by the **kinked demand curve hypothesis (Sweezy's Model)**
  - Kinked demand curve faced by an oligopolist has a 'kink' at the level of the prevailing price.
  - **Segment** of demand curve **above prevailing price** level is **highly elastic** (When a firm raises price, competitors do not follow)
  - **Segment** of demand curve **below prevailing price** level is **inelastic.** (When a firm decrease price, competitors will follow)

Monopsony → Mono + Psony → Single Buyer

Oligopsony → Oligo + Psony → few Buyers

Bilateral Monopoly

↓

Two Side

Question

1. Combination of Monopoly Market and Monopsony Market is called as:
   (*a*) Duopoly Market (*b*) Oligopoly Market
   (*c*) Bilateral Monopoly Market (*d*) Monopolistic Market

Answer

1. (*c*)

GAME THEORY IN OLIGOPOLY

Theory of Games provides a different approach to the analysis of the strategic behaviour of the oligopolists under uncertainty. It was developed by **Von Neumann and Oskar Morgenstern** in 1944. The subject of Game Theory is rational behaviour in situations of conflicts- military combat, political rivalry, and struggles of firms for sales and profits. Economic theory situations of duopoly and oligopoly often fit into this category.

Oligopolistic firms also select strategies in the face of uncertainty as to how their rivals will respond to their actions.

Questions

1. If firms in the toothpaste industry have the following market shares, which market structure would best describe the industry?

Market Share	(% of Market)
Toothpaste	18.7
Dentipaste	14.3
Shinibright	11.6
I can't believe it's not toothpaste	9.4
Brighter than white	8.8
Pastystuff	7.4
Others	29.8

(*a*) Perfect competitions
(*b*) Monopolistic competition
(*c*) Oligopoly
(*d*) Monopoly

2. One characteristic not typical of an oligopolistic industry is:
(*a*) Horizontal demand curve
(*b*) Too much importance to non-price competition
(*c*) Price leadership
(*d*) A small number of firms in the industry

3. Sweezy's Model explains the concept of price rigidity relating to the following market form:
(*a*) Oligopoly Market
(*b*) Perfect Competition Market
(*c*) Monopoly Market
(*d*) Monopolistic Market

4. Which of the following is the distinguishing characteristic of Oligopolies?
(*a*) A standardised product
(*b*) The goal of profit maximisation
(*c*) The interdependence among firms
(*d*) Downward-sloping demand curves faced by firms

5. In the context of oligopoly, the kinked demand hypothesis is designed to explain.
(*a*) Price and output determination
(*b*) Price rigidity
(*c*) Price leadership
(*d*) Collusion among rivals

6. The kinked demand curve model of oligopoly assumes that:
(*a*) The response (of consumers) to a price increase is less than the response to a price decrease.
(*b*) The response (of consumers) to a price increase is more than the response to a price decrease.
(*c*) The elasticity of demand is constant regardless of whether price increases or decreases.
(*d*) The elasticity of demand is perfectly elastic if price increases and perfectly inelastic if price decreases.

Answers

1. (*c*) **2.** (*a*) **3.** (*a*) **4.** (*c*) **5.** (*b*) **6.** (*b*)

PERFECT COMPETITION

Features/Characteristics of Perfect Competition		
1.	Large Number of Buyers and Sellers	Share of **each seller** and **buyer** in market is too small → single buyer and single seller are **unable to influence existing price and quantity.**
2.	Homogeneous or Identical Producers	❑ **Perfect Substitutes** ❑ **Perfectly elastic demand**
3.	Free Entry and Exit	❑ **There are no legal or market related restrictions to entry and no special costs** to enter an industry.
Above 3 characteristics are conditions for pure competition		
4.	Perfect knowledge of market Conditions	**Both buyers and sellers have full information related to their decision to buy or sell**
5.	Very low transaction costs	❑ **No or least transportation** incurred
6.	All firms individually are price takers	❑ Firms **accept prices determined by market forces** ❑ Price taking **applies to consumers** as well ❑ If any **seller raises his price,** he would **lose his customers**

- ❑ Perfect competition is a **myth.**
- ❑ **Eg: Agricultural products,** financial instruments (**Stock,** bonds, **foreign exchange**), and precious metals (gold, silver, platinum), the above examples approach the condition of perfect competition.

Questions

1. Price Elasticity of Demand of a firm under perfect competition will be: **(Jan. 2025)**

(*a*) Very Large (*b*) Infinite

(*c*) Large (*d*) Small

2. Which of the following is not an essential condition of pure competition? **[CA CPT Nov. 2006]**

(*a*) Large Number of Buyers and Sellers

(*b*) Homogeneous product

(*c*) Freedom of entry

(*d*) Absence of transport cost

Answers

1. (*d*) **2.** (*b*)

Two Conditions for the **Equilibrium of a Firm**

1st Order Condition: MR = MC

2nd Order Condition:

MC Curve must cut MR curve from below

OR

MC must be rising after MR = MC

OR

MC > MR after MR = MC

OR

MC should have a positive slope

Questions

1. Condition for equilibrium of firm under perfect competition:

(*a*) Where Marginal Revenue (MR) is equal to the Marginal Cost (MC)

(*b*) Where Average Revenue (AR) is equal to the Average Cost (AC)

(*c*) MC curve cuts MR curve from below

(*d*) Where MR = MC and also MC curve cuts MR curve from below

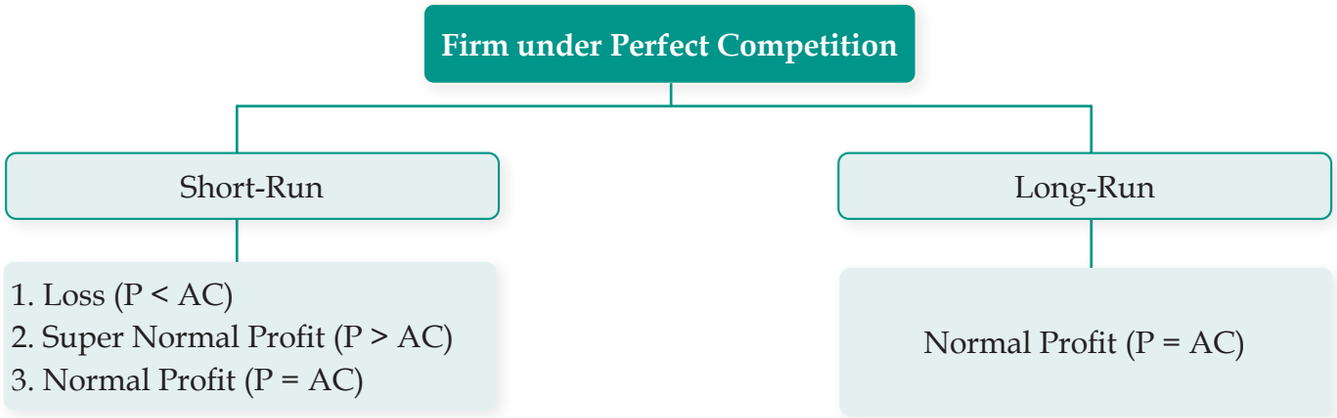
2. Identify the correct condition/Conditions for equilibrium of a firm under perfect competition: **[Jan 2025]**

I. MR = MC
II. MR > MC
III. MR < MC
IV. MC should have a positive slope
V. MC should have a negative slope

(*a*) II and V
(*b*) II and IV
(*c*) III and V
(*d*) I and IV

Answers

1. (*d*) **2.** (*d*)



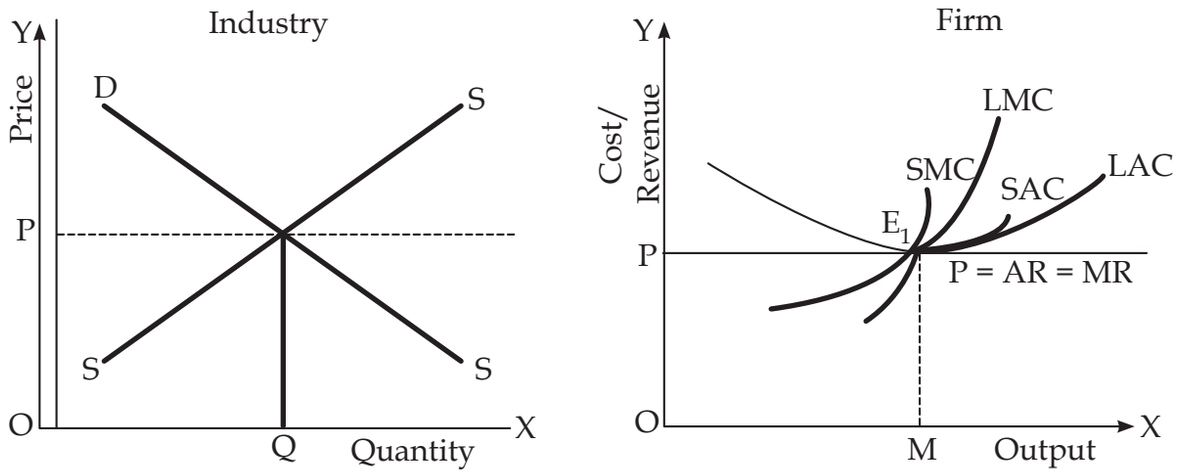
Short-Run equilibrium of a firm under Perfect Competition

Long-Run equilibrium of a firm under Perfect Competition

Long Run Equilibrium of the Industry

A long-run competitive equilibrium of a perfectly competitive industry occurs when three conditions hold:

1. All firms in the industry are in equilibrium i.e. all firms are maximising profit.
2. No firm has an incentive either to enter or exit the industry because all firms are earning zero economic profit or normal profit.
3. The price of the product is such that the quantity supplied by the industry is equal to the quantity demanded by consumers.



(a) The output is produced at the minimum feasible cost.

(b) Consumers pay the minimum possible price which just covers the marginal cost i.e. MC = AR. (P = MC)

(c) Plants are used to full capacity in the long run, so that there is no wastage of resources i.e. MC = AC = Productive Efficiency

(d) Firms earn only normal profits i.e. AC = AR.

(e) Firms maximise profits (i.e. MC = MR), but the level of profits will be just normal.

(f) There is optimum number of firms in the industry.

In other words, in the long run,

LAR LMR = P = LMC LAC and there will be optimum allocation of resources.

It should be remembered that the perfectly competitive market system is a myth. This is because the assumptions on which this system is based are never found in the real world market conditions.

Questions

1. The supply curve of a perfectly competitive firm in the short run is: **[Sept. 2024]**

(*a*) The portion of the Marginal Cost curve which lies below the minimum point of Average Variable Cost Curve.

(*b*) The portion of the Marginal Cost curve which lies above the minimum point of Average Variable Cost Curve.

(*c*) The portion of the Average Cost curve which lies below the minimum point of Average Variable Cost Curve.

(*d*) The part of the Average Cost curve which lies above the Marginal Cost Curve.

2. Agricultural goods markets depict characteristics close to:

(*a*) Perfect competition (*b*) Oligopoly

(*c*) Monopoly (*d*) Monopolistic Competition

3. A market structure in which all firms individually are price takers is known as: **(Sept. 2024)**

(*a*) Monopolistic competition (*b*) Monopoly

(*c*) Perfect Competition (*d*) Oligopoly

4. What is the shape of the demand curve faced by a firm under perfect competition?

(*a*) Horizontal (*b*) Vertical

(*c*) Positively sloped (*d*) Negatively sloped

Answers

1. (*b*) **2.** (*a*) **3.** (*c*) **4.** (*a*)

05 BUSINESS CYCLES

The economic history of all countries shows that economic activities do not remain stable. They go through regular ups and downs, known as business cycles or trade cycles. A trade cycle includes:

- Good trade periods → rising prices and low unemployment
- Bad trade periods → falling prices and high unemployment

These cycles reflect the expansion and contraction of overall economic activity, seen through changes in national income, employment, and output.

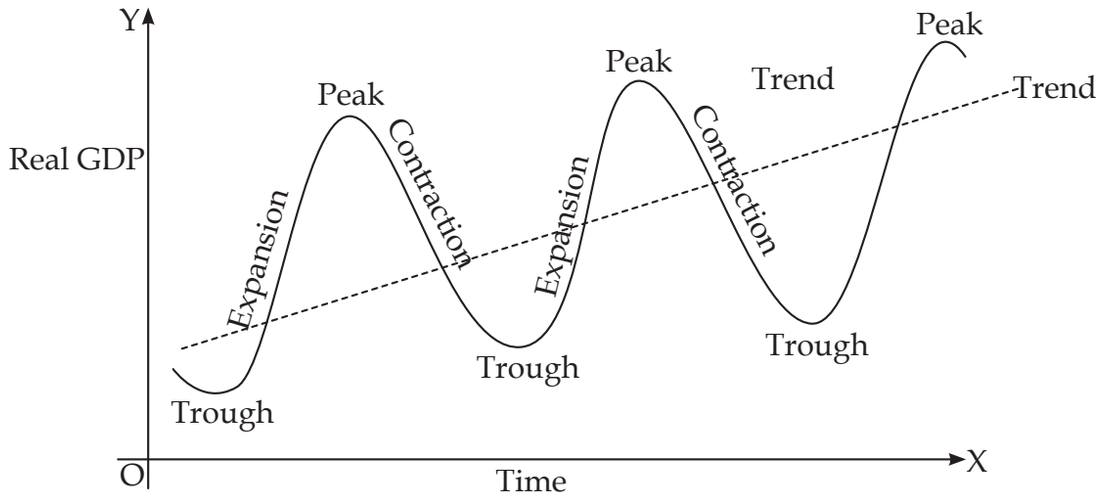
A key feature of business cycles is that they are recurrent but not regular. They keep repeating over time, but their duration is not fixed — some cycles last many years, while others last only 2–3 years.

MEANING OF THE TERM "BUSINESS CYCLES"

There have been periods of prosperity followed by periods of downturn in economic activity.

These rhythmic fluctuations in aggregate economic activity that an economy experiences over a period of time are called business cycles or trade cycles. It has 4 phases -

1. Expansion (also called Boom or Upswing)
2. Peak or Prosperity
3. Contraction (also called Downswing or Recession)
4. Trough or Depression



Phases of Business Cycle

1. Expansion Phase

- Expansion is when economic activity increases rapidly.
- Rise in national output, income, employment, aggregate demand, investment, and consumer spending. Everything becomes positive.
- Firms earn high profits; stock prices and bank credit rise.
- Unemployment is almost zero, except for frictional or structural.
- Prices and production costs rise due to higher demand.
- High levels of business confidence and increased production.
- Increased demand for all types of goods and services.
- Standard of living improves; investment is high.
- Growth continues until the economy reaches full employment.
- Expansion slows down as the economy moves toward the peak.

2. Peak Phase

- This is the highest point of the business cycle.
- At this point, the economy operates at full capacity and resources become scarce.
- Input prices rise due to shortages of raw materials and labour.
- Output prices rise leading to higher cost of living .
- Fixed-income earners start reviewing their expenses.
- Consumers reduce consumption of durable goods and houses.
- Demand becomes stagnant → end of expansion.
- Economy becomes unable to grow further and prepares to reverse direction.

3. Contraction Phase

- Economic activity starts declining after the peak.
- Investment and employment fall first.
- Producers fail to recognise pulse of the economy related to falling demand → continue producing → excess supply.
- Firms cut future investment plans; cancel orders for capital goods and raw materials.
- A chain reaction spreads across industries, reducing employment.
- Input prices fall, incomes decline → demand for goods decreases.
- Producers reduce prices to clear inventories.
- Consumers expect further price decline → postpone consumption, causing more fall in demand.
- Business pessimism increases; firms reduce investment.
- Credit becomes costly; banks give fewer loans.
- Unemployment and stock market fall.
- When decline becomes severe and continuous, economy enters depression.

4. Trough Or Depression

- This is the lowest point of business cycles.

- Characterised by very low output, investment, employment, and income.
- Demand falls sharply → production stops → many firms shut down.
- Workers face mass unemployment; wages fall drastically.
- Businesses operate far below capacity; many go bankrupt.
- Demand for loans is extremely low due to lack of confidence.
- Even at low interest rates, borrowing does not increase.
- Consumption and investment reach their minimum levels.
- Economic conditions are at the worst, but this marks the beginning of possible recovery.

Recovery

- Economy starts improving from the trough."Trough generally lasts for some time and marks the end of pessimism and the beginning of optimism. This reverses the process".
- First signs seen in the labour market – workers accept lower wages, so employment slowly increases.
- Production increases because firms expect lower costs and better profits.
- Business confidence improves; firms restart investment and rebuild stock levels.
- Credit availability increases as banks expand lending.
- Technological improvements and investment in new machinery help production rise.
- Aggregate demand rises → prices begin to rise moderately.
- Employment increases, income rises → consumption increases.
- Increased demand encourages further production.
- Economy moves toward full recovery and enters the next expansion phase.

FEATURES OF BUSINESS CYCLES

Different business cycles differ in duration and intensity. But there are certain features which they commonly exhibit:

1. Business cycles occur periodically although they do not exhibit the same regularity. The duration of these cycles varies. The intensity of fluctuations also varies.
2. Business cycles have distinct phases of expansion, peak, contraction and trough. These phases seldom display smoothness and regularity. The length of each phase is also not definite.
3. Business cycles generally originate in free market economies. They are pervasive as well. Disturbances in one or more sectors get easily transmitted to all other sectors.
4. Although all sectors are adversely affected by business cycles, some sectors such as capital goods industries, durable consumer-goods industry etc. are disproportionately affected. Moreover, compared to agricultural sector, the industrials sector is more prone to the adverse effects of trade cycles.
5. Business cycles are exceedingly complex phenomena. They do not have uniform characteristics and causes. They are caused by varying factors. Therefore, it is difficult to make an accurate prediction of trade cycles before their occurrence.

6. Repercussions of business cycles get simultaneously felt on nearly all economic variables viz. output, employment, investment, consumption, interest, trade and price levels.
7. Business cycles are contagious and are international in character. They begin in one country and mostly spread to other countries through trade relations. For example, the great depression of 1930s in the USA and Great Britain affected almost all the countries, especially the capitalist countries of the world.
8. Business cycles have serious consequences on the well-being of the society.

Questions

1. _____ Phase of business cycle marks the end of pessimism and the becoming of optimism.
   (*a*) Recovery (*b*) Depression
   (*c*) Upswing (*d*) Downswing
2. The four phases of the business cycle are
   (*a*) Expansion, peak, contraction and trough
   (*b*) Contraction, expansion, trough and boom
   (*c*) Expansion, contraction, peak, and trough
   (*d*) Peak, depression, bust, and boom
3. The term business cycle refers to
   (*a*) The ups and downs in production of commodities
   (*b*) The fluctuating levels of economic activity over a period of time
   (*c*) Decline in economic activities over prolonged period of time
   (*d*) Increasing unemployment rate and diminishing rate of savings
4. A significant decline in general economic activity extending over a period of time is
   (*a*) Business cycle (*b*) Contraction phase
   (*c*) Recession (*d*) Recovery
5. The trough of a business cycle occurs when _____ hits its lowest point.
   (*a*) Inflation in the economy (*b*) The money supply
   (*c*) Aggregate economic activity (*d*) The unemployment rate
6. The lowest point in the business cycle is referred to as the
   (*a*) Expansion (*b*) Boom
   (*c*) Peak (*d*) Trough
7. Industries that are extremely sensitive to the business cycle are the
   (*a*) Durable goods and service sectors
   (*b*) Non-durable goods and service sectors
   (*c*) Capital goods and non-durable goods sectors
   (*d*) Capital goods and durable goods sectors

8. Which of the following best describes a typical business cycle?
   (*a*) Economic expansions are followed by economic contractions
   (*b*) Inflation is followed by rising income and unemployment
   (*c*) Economic expansions are followed by economic growth and development
   (*d*) Stagflation is followed by inflationary economic growth
9. During recession, the unemployment rate _____ and output _____.
   (*a*) Rises; falls
   (*b*) Rises; rises
   (*c*) Falls; rises
   (*d*) Falls; falls
10. Economic recession shares all of these characteristics except.
   (*a*) Fall in the levels of investment, employment
   (*b*) Incomes of wage and interest earners gradually decline resulting in decreased demand for goods and services
   (*c*) Investor confidence is adversely affected and new investments may not be forthcoming
   (*d*) Increase in the price of inputs due to increased demand for inputs
11. Select the odd one out.
   (*a*) Expansion
   (*b*) Boom
   (*c*) Upswing
   (*d*) Trough
12. Which of the following does not occur during an expansion?
   (*a*) Consumer purchases of all types of goods tend to increase
   (*b*) Employment increases as demand for labour rises
   (*c*) Business profits and business confidence tend to increase
   (*d*) None of the above

Answers

1. (*b*) **2.** (*a*) **3.** (*b*) **4.** (*c*) **5.** (*c*) **6.** (*d*) **7.** (*d*) **8.** (*a*) **9.** (*a*) **10.** (*d*) **11.** (*d*) **12.** (*d*)

CAUSES OF BUSINESS CYCLES

Business cycles may occur due to external causes or internal causes or a combination of both. The 2001 recession was preceded by an absolute mania in dot-com and technology stocks, while the 2007-09 recessions followed a period of unprecedented speculation in the U.S. housing market.

Internal Causes

- Fluctuations in Effective Demand
- Fluctuations in Investment
- Variations in Government Spending
- Macroeconomic policies
- Money Supply
- Psychological Factors

External Causes

- War
- Past War Reconstruction
- Technology Factors
- Natural Factors
- Population Growth

INTERNAL CAUSES/ENDOGENOUS FACTORS

1. Fluctuation in Effective Demand

- According to Keynes, fluctuations arise because aggregate effective demand changes.
- High demand → higher production, investment, income and employment → expansion.
- Low demand → lower output and employment → recession.
- Variations in demand cause conditions of expansion or contraction.

2. Fluctuation in Investment

- Investment expenditure changes due to profit expectations of business firms.
- High expected profits → rise in investment → expansion.
- Low expected profits → fall in investment → contraction.
- Changes in aggregate demand due to rise or fall in investment lead to business cycles.

3. Fluctuation in Government Spending

- Changes in government expenditure affect overall economic activity.
- Higher public spending → income and employment rise → upswing.
- Reduction in public spending → decline in production, income and employment → downswing.
- Government policies influence the pace of business fluctuations.

4. Macroeconomic Policies

- Monetary and fiscal policies also cause business cycle fluctuations.
- Expansionary policies (more money supply, lower taxes, higher govt. spending) → stimulate demand → expansion.
- Contractionary policies (tight money, higher taxes) → reduce demand → contraction.
- Internal and external shocks along with policy actions create cyclical movements.

5. Money Supply

- Unplanned changes in money supply may cause fluctuations.
- Increase in money supply → higher aggregate demand → expansion.
- Fall in money supply → reduce demand and income → recession.
- Monetary disturbances generate cyclical phases.

6. Psychological Factors

- According to Pigou, optimism and pessimism of businessmen influence cycles.
- Optimism → increases investment, employment, income → expansion.
- Pessimism → reduced investment and consumption → contraction.
- Innovations (Schumpeter) and price expectations (Kaldor) also influence business decisions.

EXTERNAL CAUSES/EXOGENEOUS FACTORS

1. War

- During war, large resources are diverted for war production → rise in price, demand and production.

- After war, reconstruction creates huge demand for goods → income and employment rise → boom.
- When reconstruction slows, demand falls → recession.

2. Post-War Reconstruction

- After war ends, rebuilding of houses, roads, bridges etc. increases economic activity.
- Increased demand for labour and materials → expansion in production, income and profits.
- Once reconstruction is complete, demand declines → contraction.

3. Technology Shock

- New inventions and technological improvements raise productivity.
- Expands output, employment, income and profits → boom conditions.
- When technology becomes common or slows down, investment falls → slowdown.

4. Natural Factors

- Weather cycles affect agricultural output significantly.
- Good weather → high output → higher income → expansion.
- Drought, floods or natural calamities → reduced output → fall in income → recession.
- Reduced agricultural income lowers demand for industrial goods.

5. Population Growth

- If population growth is faster than economic growth, savings decline.
- Lower savings → lower investment → lower income and employment → slowdown.
- High population also increases pressure on resources → instability in economic activity.

Questions

1. Business Cycles may occur due to _____.

(*a*) External Causes (*b*) Internal Causes

(*c*) Both (*a*) and (*b*) (*d*) None

2. Endogenous factors refers to _____ causes:

(*a*) Internal (*b*) External

(*c*) Economic (*d*) Ecological

3. Which of the following is the cause of business cycles?

(*a*) Fluctuations in aggregate effective demand

(*b*) Fluctuations in investments

(*c*) Fluctuations in government spending

(*d*) All of the above

4. The most probable outcome of an increase in the money supply is

(*a*) interest rates to rise, investment spending to rise, and aggregate demand to rise

(*b*) interest rates to rise, investment spending to fall, and aggregate demand to fall

(*c*) interest rates to fall, investment spending to rise, and aggregate demand to rise

(*d*) interest rates to fall, investment spending to fall, and aggregate demand to fall

5. Whose statement out of these is false?

(*a*) Hawtrey - "Trade cycle is purely Monetary phenomena"

(*b*) Keynes – "Fluctuations in aggregate Demand"

(*c*) Pigou - "Fluctuations in investment"

(*d*) Schumpeter - "Innovations"

Answers

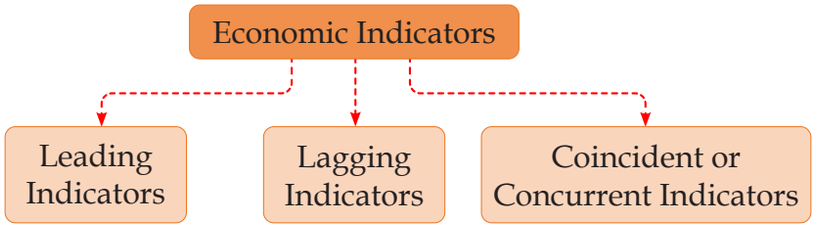
1. (*c*) **2.** (*a*) **3.** (*d*) **4.** (*c*) **5.** (*c*)

WHAT ARE THE DIFFERENT INDICATORS TO DETECT WHICH PHASE IS GOING ON

Meaning of Indicators

It is very difficult to predict the turning points of business cycles.

Economists use changes in a variety of activities to measure the business cycle and to predict where the economy is headed. These are called Indicators.



TYPES OF INDICATORS

Leading Indicators

Meaning

A leading indicator is a measurable economic factor that changes before the economy starts to follow a particular pattern or trend.

In other words, those variables that change before the real output changes are called 'Leading Indicators'. Leading Indicators often change prior to large economic adjustments.

Examples

- Changes in stock prices,
- Profit margins and profits,
- Indices such as housing, interest rates and prices,
- Value of new orders for consumer goods, new orders for plant and equipment, building permits for private houses,
- Fraction of companies reporting slower deliveries,
- Index of consumer confidence and money growth rate.

Lagging Indicators

Meaning

- Lagging indicators reflect the economy's historical performance and changes in these indicators are observable only after an economic trend or pattern has already occurred. In other words, variables that change after the real output changes are called 'Lagging Indicators'.

Examples

- Unemployment
- Corporate profits
- Labour cost per unit of output
- Interest rates
- The Consumer Price Index and
- Commercial lending activity

Coincident Indicators

Meaning

Coincident economic indicators, also called concurrent indicators, coincide or occur simultaneously with the business-cycle movements. Since they coincide fairly closely with changes in the cycle of economic activity, they describe the current state of the business cycle.

Examples

- Gross Domestic Product
- Industrial production, inflation
- Personal Income
- Retail sales and
- Financial market trends such as stock market prices

Significance

These indicators give information about the rate of change of the expansion or contraction of an economy more or less at the same point in time it happens.

RELEVANCE OF BUSINESS CYCLES IN BUSINESS DECISION MAKING

Business cycles affect all aspects of an economy. Understanding the business cycle is important for businesses of all types as they affect the demand for their products and, in turn, their profits, which ultimately determines whether a business is successful or not. Economy-wide trends can have a significant impact on all types of businesses. However, it should be kept in mind that business cycles do not affect all sectors uniformly.

In general, economic forecasts are not perfectly reliable. Economic forecasts can help business firms to prepare for changes in the direction of the economy either before or soon after these changes occur.

Questions

1. Which of the following is not an example of coincident indicator?

(*a*) Industrial production (*b*) Inflation

(*c*) Retail sales (*d*) New orders for plant and equipment

2. According to _____ trade cycles occur due to onset of innovations.

(*a*) Hawtrey (*b*) Adam Smith

(*c*) J M Keynes (*d*) Schumpeter

3. Economic indicators are:

(*a*) A one stroke solution to check the phase of economy

(*b*) Indicators showing the movement of economy

(*c*) Some activities which predict the direction of economy

(*d*) Just an illusion

4. Which economic indicator is required to predict the turning point of business cycle?

(*a*) Leading indicator (*b*) Lagging indicator

(*c*) Coincident (*d*) All of the above

5. According to Keynes, fluctuations in Economic activities are due to:

(*a*) Fluctuation in aggregate effective demand

(*b*) Innovations

(*c*) Changes in money supply

(*d*) Fluctuation in agricultural output

6. A leading indicator is:

(*a*) a variable that tends to move along with the level of economic activity

(*b*) a variable that tends to move in advance of aggregate economic activity

(*c*) a variable that tends to move in consequence of the level of aggregate economic activity

(*d*) None of the above

7. A variable that tends to move later than aggregate economic activity is called:

(*a*) a leading variable (*b*) a coincident variable

(*c*) a lagging variable (*d*) a cyclical variable

8. Leading economic indicators:

(*a*) are used to forecast probable shifts in economic policies

(*b*) are generally used to forecast economic fluctuations

(*c*) are indicators of stock prices existing in an economy

(*d*) are indicators of probable recession and depression

9. Peaks and troughs of the business cycle are known collectively as:

(*a*) Volatility (*b*) Turning points

(*c*) Equilibrium points (*d*) Real business cycle events

Answers

1. (*d*) **2.** (*d*) **3.** (*c*) **4.** (*d*) **5.** (*a*) **6.** (*d*) **7.** (*c*) **8.** (*b*) **9.** (*b*)

EXAMPLES OF BUSINESS CYCLES – SHORT NOTES

1. Great Depression of 1930


Complete and Closing N. Y. Stock Exchange Prices On Pages 37–40

The Pittsburgh Press

STOCKS EXTRA

HUGE LOSSES IN WALL STREET: SALES SET ALL-TIME RECORD

200 Escape Seventh Ave. Hotel Fire

RESCUE QUEST FROM SMOKE FILLED ROOM

BLAZE IN HOTEL

UNDERGROUND TRAFFIC PLAN GIVEN COUNCIL

RACING

BIG DECLINE SLOWED UP BY LATE RALLY

TAKE 66 FROM SINKING LINER

HOPE FOR AIR

- Longest and most severe worldwide depression of the 20th century.
- Started in the US and spread worldwide.
- World GDP fell by around 15% between 1929–32.
- Production, employment and income collapsed.
- Keynes argued it happened due to decline in aggregate expenditure.
- Many economists also blame banking crisis, low money supply, deflation and pessimism.
- Recovery began in 1933; increased money supply, gold inflow, and government spending helped economies move out of depression.

2. Information Technology (Dot-Com) Bubble Burst (2000)

- IT or Dot-Com bubble occurred from 1997–2000.
- Many new Internet-based companies were created due to low interest rates.
- Investors invested heavily expecting huge profits.
- Over-optimism and speculation drove stock prices very high.
- "Dot-com" companies spent heavily but had low profits.
- Around 2000–2001, many ran out of capital; nearly half shut down or were acquired.
- Stock markets crashed, slowing the economies and creating a downturn.

3. Global Economic Crisis (2008–09)

- Originated in the US financial markets after the dot-com recession.
- The US Federal Reserve reduced interest rates to revive economy → led to cheap credit.
- Increased housing demand → rise in house prices → belief that prices would keep rising.
- Banks gave loans even to sub-prime borrowers (low income, poor credit).
- Excessive lending led to oversupply of houses → house prices started falling in 2006.
- Sub-prime borrowers defaulted → huge losses to banks.
- Crisis spread across financial institutions → global recession began.

06 DETERMINATION OF NATIONAL INCOME

CONTENT OF THE CHAPTER

Unit-1: National Income Accounting
Unit-2: The Keynesian Theory of Determination of National Income

UNIT–1: NATIONAL INCOME ACCOUNTING





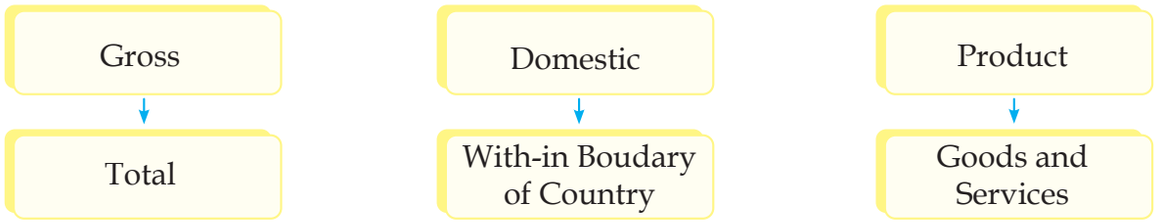








GDP



1 April 2025 - 31 March 2026

GDP is sum total of money value of all goods and services produced within domestic boundary/ territory of a country during a period of time.

GDP↑ → Goods and Service↑ ⇒ Facilities↑

↓

GDP → Well being↑ OR Welfare↑

GDP AND WELFARE

GDP Excludes the following:

1. Income distributions and, therefore, GDP per capita is a completely inadequate measure of welfare. Countries may have significantly different income distributions and, consequently, different levels of overall well-being for the same level of per capita income.
2. Quality improvements in systems and processes due to technological as well as managerial innovations which reflect true growth in output from year to year.
3. Production hidden from government authorities, either because those who engage in it are evading (चोरी) taxes or because it is illegal (drugs, gambling etc.)
4. Non-market production (with a few exceptions) and Non-economic contributors to well-being for example: health of a country's citizens, education levels, political participation, or other social and political factors that may significantly affect well-being levels.
5. The disutility of loss of leisure time. We know that, other things remaining the same, a country's GDP rises if the total hours of work increase.
6. Economic 'bads' for example crime, pollution, traffic congestion etc. which make us worse off.
7. The volunteer work and services rendered without remuneration/salary undertaken in the economy, even though such work can contribute to social well-being as much as paid work.
8. Many things that contribute to our economic welfare such as, leisure time, fairness, gender equality, security of sense of community etc.
9. Both positive and negative externalities which are external effects that do not form part of market transactions.

   Externalities affect our welfare, but GDP fails to Include them.
10. The distinction between production that makes us better off and production that only prevents us from becoming worse off, for e.g., defense expenditures such as on police protection. Increased expenditure on police due to increase in crimes may increase GDP but these expenses only prevent us from becoming worse off. However, no reflection is made in national income of the negative impacts of higher crime rates.

As another example, automobile accidents result in production of repairs, output of medical services, insurance and legal services all of which are production included in GDP just as any other production.



LAND



Factors of Production	Factor Income
Land	Rent
Labour	Wages
Capital	Interest
Entrepreneur	Profit





Pocket Money



GIFT TRANSFER INCOME

Transfer Income	Factor Income
It is the income obtained without providing any factor input	It is the income earned by providing factor input.
It is not included in the calculation of national income.	It is included in the calculation of national income.
Examples: Gifts, Pocket Money etc.	Example: Rent, Interest etc.

Questions

1. Which of the following makes GDP an inappropriate index of welfare?

(*a*) Non-Market transactions (*b*) Externalities

(*c*) Distribution of GDP (*d*) All of these

2. Which of the following is an example of transfer payment?

(*a*) Old age pensions and family pensions

(*b*) Scholarships given to deserving diligent students

(*c*) Compensation or financial help given for loss of property due to floods

(*d*) All the above

Answers

1. (*d*) **2.** (*d*)

GDP

GDP = General Price Level × Qty. of Output

↓

Average Price of all goods and services

Years	Price Level	Qty.	GDP	Real GDP
2010	10	100	1000	1000
2011	20	100	2000	1000
2012	30	100	3000	1000
2013	30	200	6000	2000
2014	5	200	1000	2000

Real GDP: GDP Calculated at base year Price Level.

= Base Year Price Level × Qty. of Output

Nominal GDP: GDP Calculated at current year price level

= Current year price level × Qty. of output

Real GDP is better than Nominal GDP because Real GDP changes due to change in physical output only.

Nominal GDP may change due to change in Price Level and Qty of Output as well.

Question

1. The output at current year price is called:

(*a*) Nominal GDP (*b*) Real GDP

(*c*) National GDP (*d*) None of the above

Answer

1. (*a*)

1. Real GDP = Nominal GDP

↓

When Base Year Price Level = Current Year Price Level

2. Real GDP > Nominal GDP

↓

When Base Year Price Level > Current Year Price Level

3. Real GDP < Nominal GDP

↓

When Base Year Price Level < Current Year Price Level

Questions

1. Real GDP May change due to _____.

(*a*) Change in price only (*b*) Change in output only

(*c*) Change in both price and output (*d*) None of the above

2. Nominal GDP may change due to _____.

(*a*) Change in price only (*b*) Change in output only

(*c*) Change in both price and output (*d*) None of the above

Answers

1. (*b*) **2.** (*c*)

GDP DEFLATOR

or Price Index = $\frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

Example 1. Nominal GDP = 100

Real GDP = 50

GDP Deflator = $\frac{100}{50} \times 100 = 200$

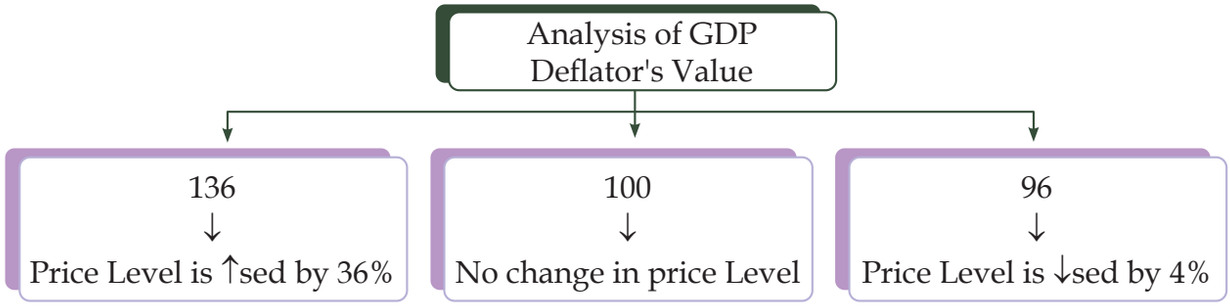
Example 2. Price Index = 150

Nominal GDP = 300

Real GDP = ?

$$150 = \frac{300}{\text{Real GDP}} \times 100$$

$$\text{Real GDP} = \frac{300}{150} \times 100 = 200$$



Q. Find nominal GDP if real GDP = 450 and price index = 120

Ans. $\frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100 = \text{Price Index}$

$$\text{Nominal GDP} = \text{Real GDP} \times \frac{\text{Price Index}}{100}$$

$$\text{Nominal GDP} = 450 \times \frac{120}{100} = 540$$

Q. The nominal and real GDP respectively of a particular year one ₹3000 crores and ₹4700 Crores respectively. Calculate GDP deflator and comment on the level of Price of the year.

Ans. $\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$

$$\frac{3000}{4700} \times 100 = 63.829$$

Prices are decreased by
100 – 63.829 = 36.17%

Q. Suppose nominal GDP of a country in 2010 is given at ₹600 Crores and price index is given as base year 2010 is 100. Now let the nominal GDP increase to ₹1200 crores in 2018 and the price index rises to 110, find out real GDP?

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

Q. Find out GDP Deflator. Interpret it.

Years	Nominal GDP	Real GDP	GDP Deflator
2014	500	500	
2015	800	650	
2016	1150	800	
2017	1300	950	
2018	1550	1190	
2019	1700	1240	

Ans.

Years	Nominal GDP	Real GDP	GDP Deflator
2014	500	500	100
2015	800	650	123.08
2016	1150	800	143.75
2017	1300	950	136.84
2018	1550	1190	130.25
2019	1700	1240	137.10

$$\text{Inflation rate in current year} = \frac{\text{GDP deflator in current year} - \text{GDP deflator in old year}}{\text{GDP Deflator in old year}} \times 100$$

$$\text{Inflation rate in year 2} = \frac{\text{GDP Deflator in year 2} - \text{GDP deflator in old year 1}}{\text{GDP Deflator in old year 1}} \times 100$$

$$\text{Inflation rate in year 3} = \frac{\text{GDP Deflator in year 3} - \text{GDP deflator in year 2}}{\text{GDP Deflator in year 2}} \times 100$$

Questions

1. Considering the data given in the table below calculate the Inflation rate of year 3:

Years	Nominal GDP	Real GDP	GDP Deflator
0	900	900	100
1	1200	1000	120
2	1500	1200	125
3	1800	1250	144
4	2000	1600	120

(*a*) 13.19%
(*b*) 15.20%
(*c*) 19%
(*d*) –19%

2. Consider the following data and answer the Questions.

Financial Year (FY)	2020-21	2021-22	2022-23	2023-24
GDP Deflator	100	154.25	168.40	148.25

In which FY the price level has fallen?

(*a*) FY 2020-21
(*b*) FY 2023-24
(*c*) FY 2022-23
(*d*) FY 2021-22

3. Consider the following data and answer the Questions.

Financial Year (FY)	2020-21	2021-22	2022-23	2023-24
GDP Deflator	100	154.25	168.40	148.25

What will be the inflation rate in FY 2022-23 as compared to FY 2021-22?

(*a*) 9.54%
(*b*) 8.76%
(*c*) 9.17%
(*d*) 8.87%

4. Consider the following data and answer the Questions.

Financial Year (FY)	2020-21	2021-22	2022-23	2023-24
GDP Deflator	100	154.25	168.40	148.25

In which FY the nominal GDP and real GDP are the same?

(*a*) FY 2021-22
(*b*) FY 2022-23
(*c*) FY 2020-21
(*d*) FY 2023-24

5. Find the real GDP if nominal GDP = 720 and price index = 120 **(Jan 2025)**

(*a*) 500 (*b*) 864

(*c*) 600 (*d*) 700

6. Calculate the GDP Deflator for the years 2022 and 2023. **(June 2024)**

Year	Nominal GDP in Crores (₹)	Real GDP in Crores (₹)
2020	600	600
2021	1050	650
2022	1250	850
2023	1500	940

(*a*) 147.06 and 159.57 (*b*) 100 and 161.54

(*c*) 68 and 62.67 (*d*) 400 and 560

7. The inflation rate between the years 2022 and 2023 is _____. **(June 2024)**

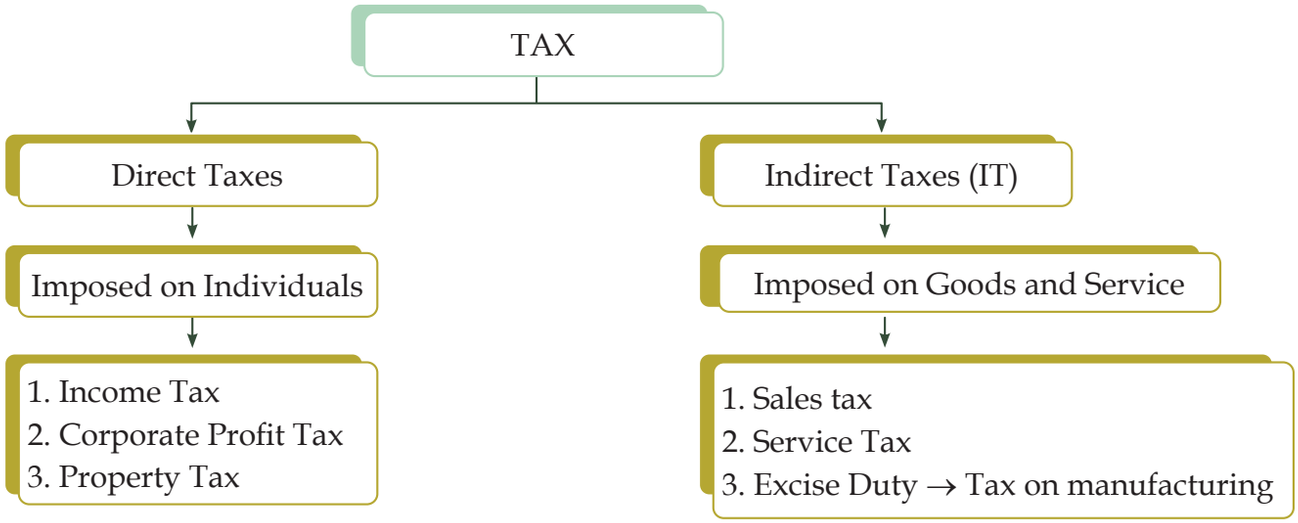
Year	Nominal GDP in Crores (₹)	Real GDP in Crores (₹)
2020	600	600
2021	1050	650
2022	1250	850
2023	1500	940

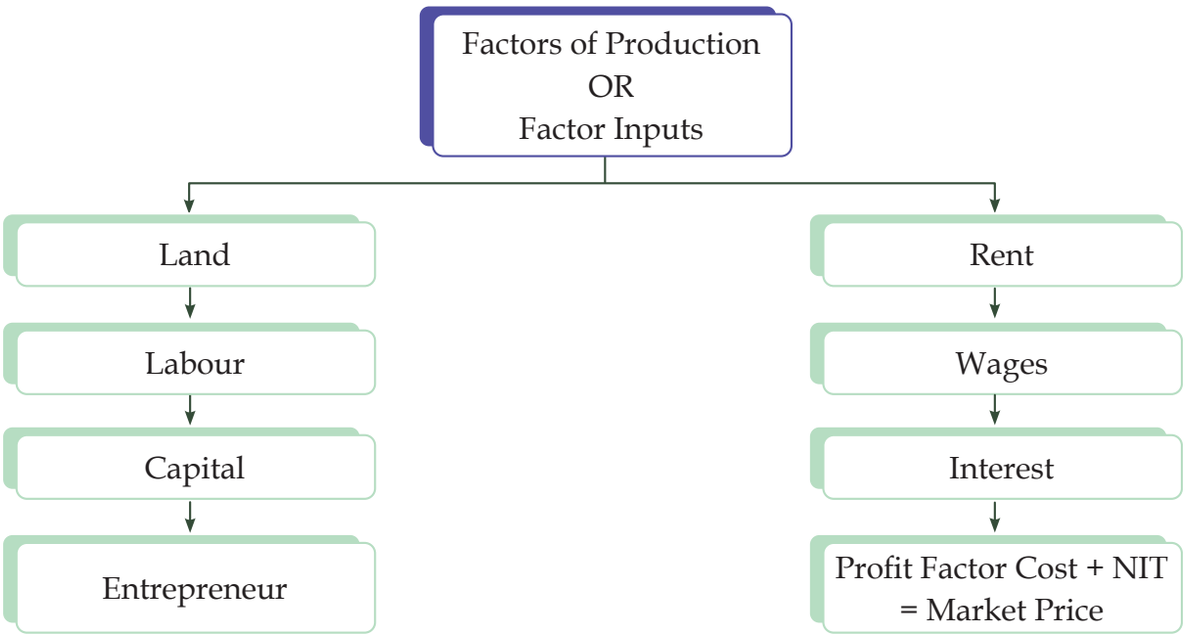
(*a*) –7.84 (*b*) –8.51

(*c*) 8.51 (*d*) 7.84

Answers

1. (*b*) **2.** (*b*) **3.** (*c*) **4.** (*c*) **5.** (*c*) **6.** (*a*) **7.** (*c*)

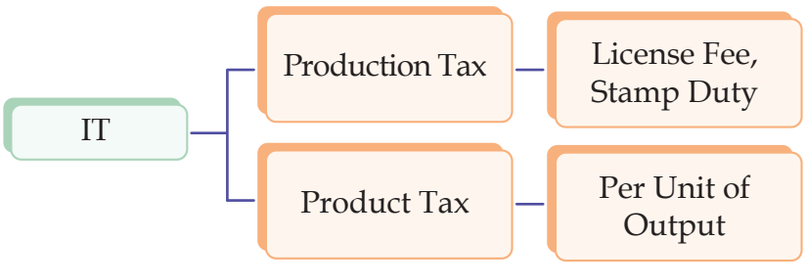




Factor Cost (FC) = 6 + 5 – 1
= FC + (IT – Subsidies)
= FC + NIT → Net Indirect Tax
= 10 → Market Price (MP)

Subsidies → Financial Assistance/Help

FC + NIT = MP ⇒ MP – NIT = FC



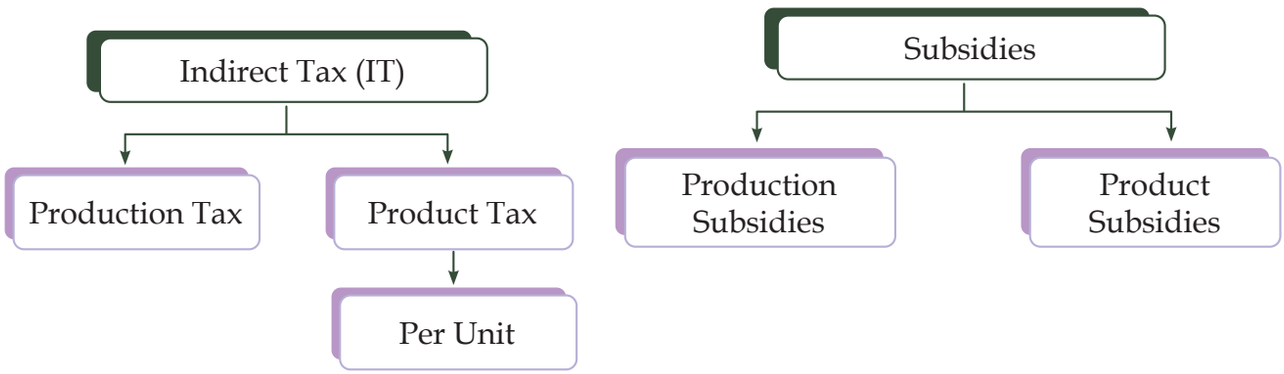
IT = Production Taxes + Product Tax

Subsidies = Production Subsidies + Product Subsidies

Production Taxes

Product Subsidies

FC + Production Taxes – Production Subsidies = Basic Prices



FC + (IT – Subsidies) = MP

FC + (Production Tax + Product Tax – (Production Subsidies + Product Subsidies) = MP

FC + (Production Tax – Production Subsidies) = Basic Price

PRODUCTION TAXES AND PRODUCTION SUBSIDIES

Not related/Independent of the Volume of Actual Production

- Examples of production taxes are land revenues, stamps and registration fees and tax on profession, factor license fee, taxes to be paid to the local authorities, pollution tax etc.
- Examples of production subsidies are subsidies to railways, subsidies to village and small industries.

Paid or received on per unit of product

Product taxes and Product Subsidies

- Examples of product taxes are excise duties, sales tax, service tax and import export duties.
- Examples of product subsidies are food, petroleum and fertilizer subsidies.

Illustrations

Q. Calculate GDP at MP or GDP_{MP}

GDP_{FC} = 100

Production Tax = 10

Product Tax = 5

Production Subsidies = 8

Product Subsidies = 2

Ans. Indirect Tax (IT) = Production Tax + Product tax

= 10 + 5 = 15

Subsidies = Production Subsidies + Product Subsidies

= 8 + 2 = 10

NIT = 15 – 10 = 5

= 5

$GDP_{MP} = GDP_{FC}$ + NIT

= 100 + 5

= 105

Q. Calculate GDP at Basic Price

GDP_{FC} = 100

Production Tax = 10

Product tax = 5

Production Subsidies = 8

Product subsidy = 2

Ans. GDP at Basic Price = GDP_{FC} Production Tax – Production Subsidies

= 100 + (10-8)

= 100 + 2

= 102

Q. Calculate GDP_{MP}

$GDP_{FC} = 500$

NIT = 50

Ans. $GDP_{MP} = GDP_{FC} + NIT$

$= 500 + 50$

$= 550$

Q. Calculate GDP_{MP}

IT = 10

Subsidies = 16

$GDP_{FC} = 100$

Ans. $GDP_{MP} = GDP_{FC} + NIT$

$= 100 + (10 - 16)$

$= 100 + (-6) = 94$

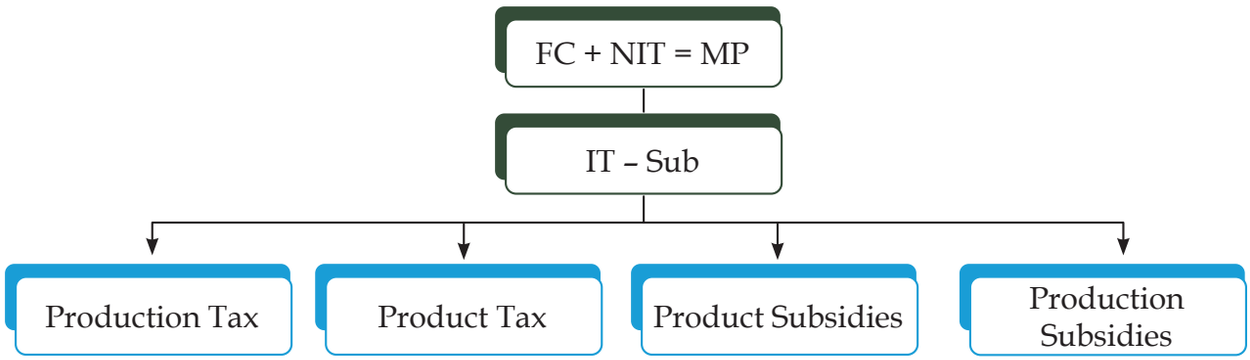
IT > Sub $\Rightarrow$ NIT $\rightarrow$ Positive

IT < Sub $\Rightarrow$ NIT $\rightarrow$ Negative

$GDP_{MP} > GDP_{FC} \Rightarrow \dfrac{IT > Subsidies}{NIT \rightarrow Positive}$

$GDP_{MP} < GDP_{FC} \Rightarrow \dfrac{IT < Subsidies}{NIT \rightarrow Negative}$

$GDP_{MP} = GDP_{FC} \Rightarrow \dfrac{IT = Subsidies}{NIT \text{ is } 0}$



DEPRECIATION OR CONSUMPTION OF FIXED CAPITAL OR CURRENT REPLACEMENT COST

Gross – Depreciation = Net

Gross DP – Depreciation = Net DP

GDP – Depreciation = NDP

GDP = NDP + Depreciation

GDP_{FC} – Dep. = NDP_{FC}
NDP_{FC} + Dep. = GDP_{FC}

Question

1. GDP_{MP} = 100
Dep. = 20
IT = 8
Subsidies = 10
Calculate NDP_{FC}?

(*a*) 78 (*b*) 80
(*c*) 82 (*d*) None

Answer

1. (*c*)

Factor Income from Abroad (FIFA)

Factor Income Paid to Abroad (FITA)

FIFA – FITA ⇒ Net factor Income from Abroad (NFIA)

Domestic + NFIA = National

Domestic Income is sum total if all factor Incomes earned within domestic boundary of an Economy.

Domestic Income	=	1000
FIFA	=	200
FITA	=	50
NFIA = FIFA – FITA	=	150

Domestic + NFIA = National Income (NNP_{FC})
1000 + 150 = 1150

Domestic Income = Domestic Product

Net Domestic Product at Factor Cost = NDP_{FC}

NDP_{FC} OR Domestic Income: Product – Sum total of all factor income earned within domestic boundary of a country during a period of time.

Financial/Fiscal/Accounting Year
↓
1 April – 31 March

- Geographical Boundary
- Air Boundary
- Water Boundary
- Embassy

NNP_{FC} OR National Income: Sum total of all factor income earned by all residents of a country during a period of time.

NDP_{FC} + [FIFA – FITA] = NNP_{FC}

NDP_{FC} + NFIA = NNP_{FC}

Domestic Income	National Income
See the Place Only	See the PERSON Only
	Resident

NDP_{FC} = Domestic Income/Net Domestic Income

NDP_{MP} → Domestic Income at MP

NET FACTOR INCOME FROM ABROAD (NFIA)

NFIA is the difference between the

- Aggregate amount that a country's citizens and companies earn abroad, Total (FIFA)
- Aggregate amount that foreign citizens and overseas companies earn in that country. (FITA)

NFIA = FIFA – FITA

Questions

1. The formula to the compute GDP at Factor Cost is:

(*a*) GDP at Factor Cost – Indirect Taxes – Subsidies

(*b*) GDP at Market Price – Indirect Taxes

(*c*) GDP at Market Price – Indirect Taxes + Subsidies

(*d*) GDP at Factor Cost + Indirect Taxes + Subsidies

2. The Basis of distinction between market price and factor cost is:

(*a*) Net factor income from abroad

(*b*) Net indirect Taxes (i.e., Indirect Taxes – Subsidies)

(*c*) Net Indirect Taxes (i.e., Indirect Tax × Subsidies)

(*d*) Depreciation (Consumption of fixed capital)

3. _____is Gross Domestic Product (GDP) plus net factor income from abroad.

(*a*) Net domestic product (*b*) Gross National Product

(*c*) Net National Product (*d*) Gross Domestic Product

4. Which is the distinction between "National" and "Domestic"?

(*a*) National = Domestic + Net factor Income from abroad

(*b*) National = Domestic × Net factor Income from abroad

(*c*) Domestic = National + Net factor Income from abroad

(*d*) None of the above

5. Which of the following is alternatively known as the National Income?

(*a*) Gross National Product at factor Cost

(*b*) Net National Product at Market Price

(*c*) Gross National Product at Market Price

(*d*) Net National Product at Factor Cost

Answers

1. (*c*) **2.** (*b*) **3.** (*b*) **4.** (*a*) **5.** (*d*)

TOTAL 8 AGGREGATES

1. GDP at MP (GDP_{MP})
2. GDP at FC (GDP_{FC})
3. NDP at MP
4. NDP at FC
5. GNP at MP
6. GNP at FC
7. NNP at MP
8. NNP at FC

Rule 1 :	FC + NIT = MP	GDP_{FC} + NIT = GDP_{MP}
NIT	MP – NIT = FC	
Rule 2 :	Gross – Dep. = Net	GDP_{FC} – Dep. = NDP_{FC}
Dep.	Net. + Dep. = Gross	
Rule 3 :	Domestic + NFIA = National	GDP_{FC} + NFIA = GNP_{FC}
NFIA	National – NFIA = Domestic	GDP_{FC} NFIA = GNP_{FC}



Illustrations

Q. NDP_{FC} = 100, NIT = 10, NFIA = 5, Dep. = 2.

Ans. $NNP_{FC} = NDP_{FC} + NFIA = 100 + 5 = 105$

$GDP_{FC} = NDP_{FC} + Dep. = 102$

$GDP_{MP} = NDP_{FC} + NIT + Dep. = 112$

$GNP_{MP} = NDP_{FC} + Dep. + NFIA + NIT = 117$

$NNP_{MP} = NDP_{FC} + NFIA + NIT$ $NDP_{MP} = NDP_{FC} + NIT$

$= 100 + 5 + 10 = 100 + 10$

= 115 = 110

100 + – 10 = 90

NDP_{FC} + NFIA = NNP_{FC}

If NFIA is Negative → $NDP_{FC} > NNP_{FC}$ $GDP_{FC} > GNP_{FC}$

↓ OR

FIFA < FITA $GDP_{MP} > GNP_{MP}$

FIFA = 10

FITA = 12

NFIA = 10 – 12

= – 2

100 + 5 = 105

NDP_{FC} + NFIA = NNP_{FC}

If NFIA is Positive ⇒ $NDP_{FC} < NNP_{FC}$ OR $GDP_{MP} < GNP_{MP}$

↓

FIFA > FITA

NFIA = FIFA – FITA

= 10 – 6

= 4

Net Factor Income To Abroad = 100

NFIA = –100

Q. GDP_{MP} = 40, Net factor Income To Abroad = 10

GNP_{MP} = GDP_{MP} + NFIA

= 40 + (-10) = 30

Net Factor Income To Abroad = – 60

NFIA = 60

Q. Compute GNP_{MP} GDP_{FC} = ₹3,000; Net factor income to abroad = ₹200. Indirect Taxes = ₹420. Subsidies = ₹240

(*a*) 3,380 (*b*) 2,980

(*c*) 3,020 (*d*) 2,620

GNP_{MP} = GDP_{FC} + NIT + NFIA

= 3000 + (420-240) + (-20)

= 3000 + 180 – 200

=2980

Questions

1. Fill in the blank : GDP_{FC} = NNP_{MP} + Dep. – NFIA – NIT

(*a*) + Depreciation – Net factor income from abroad – Net Indirect Taxes

(*b*) + Depreciation – Net factor income from abroad + Net Indirect Taxes

(*c*) + Depreciation – Net factor income from abroad + Net Indirect Taxes

(*d*) + Depreciation + Net factor income from abroad – Net Indirect Taxes

2. Gross National Product at Market Prices (GNP_{MP}) is :

(*a*) GDPMP + Net Factor Income from Abroad

(*b*) GDPMP – Net Factor Income from Abroad

(*c*) GDPMP – Depreciation

(*d*) GDPMP + Net Indirect Taxes

3. What is the relationship between Net Domestic Product (NDP_{MP}) and Gross Domestic Product (GDP_{MP}).

(*a*) NDPMP = GDPMP – Depreciation (*b*) NDPMP – GDPMP + Depreciation

(*c*) GDPMP = NDPMP – Depreciation (*d*) None of these

4. If net national product is given at Market Price, we _____ Indirect taxes and _____ subsidies to get National Income of the economy.

(*a*) Add, Subtract (*b*) Add, Divide

(*c*) Subtract, Add (*d*) Subtract, Divide

5. Which of the following formula is correct for computation of GNP at market Price?

(*a*) $GNP_{MP} = GDP_{MP}$ + Depreciation

(*b*) $GNP_{MP} = GDP_{MP}$ + Net factor Income from abroad

(*c*) $GNP_{MP} = GDP_{MP}$ – Depreciation

(*d*) $GNP_{MP} = GDP_{MP}$ – Net factor Income from abroad

6. When NFIA is positive, then

(*a*) $GNP_{MP} > GDP_{MP}$ (*b*) $GNP_{MP} < GDP_{MP}$

(*c*) $GDP_{MP} > GNP_{MP}$ (*d*) $GDP_{MP} < GNP_{FC}$

7. GDP at Market Price:

(*a*) GDP at Factor Cost Plus Net Indirect Taxes

(*b*) NNP at market Price Minus Indirect Taxes

(*c*) GNP at Market Price plus net factor Income from Abroad

(*d*) None

8. _____is Gross Domestic Product (GDP) plus net factor income from abroad.

(*a*) Net Domestic Product (*b*) Gross National Product

(*c*) Net National Product (*d*) Gross Domestic Product

9. Calculate NFIA:

	(Lakhs)
GDP_{FC}	4,000
Depreciation	100

Net Indirect Taxes	300
NNP_{MP}	4,500

(*a*) 300 (*b*) –300

(*c*) 600 (*d*) None

Answers

1. (*a*) **2.** (*a*) **3.** (*a*) **4.** (*c*) **5.** (*b*) **6.** (*a*) **7.** (*a*) **8.** (*b*) **9.** (*a*)

Domestic Product = Domestic Income = NDP_{FC}

National Income = National Product = NNP_{FC}

$NNP_{FC} = NDP_{FC} + NFIA$

Q. Who Calculates National Income in India?

Ans. Ministry of Statistics and Programme Implementation (MoSPI)

↓

Central Statistics Office (CSO)

↓

National Accounts Statistics (NAS)

The Central Statistical Organization (CSO) in the Ministry of Statistics and Programme Implementation (MOSPI) is 'Responsible for the compilation of National accounts Statistics.

At the state level, state Directorates of Economics and Statistics (DESs) have the responsibility of compiling their state Domestic Product and other aggregates.

- The performance of an economy depends on the output of goods and services produced by it, which is measured by National Income.
- According to the Central Statistical Organization (CSO) 'National income is the sum total of factor incomes generated by the normal residents of a country in the form of wages, rent, interest and profit in an accounting year.
- Concepts of national income accounting were first guided (pioneered) by **the Nobel Prize winning economists Simon Kuznets and Richard Stone**.

USEFULNESS AND SIGNIFICANCE OF NATIONAL INCOME ESTIMATES

1. It helps business to forecast and future demand for their products.
2. NI shows composition and structure of different sectors and periodical variations in them and broad sectoral shift in an economy over a period of time
3. Sectoral contribution to national income is used by the government to decide various sector specific development policies to increase growth rates.
4. NI statistics also provide quantitative basis for assessing, choosing and evaluating economic policies.
5. NI estimates throw light on income distribution and possible inequality in the distribution among different income categories. It gives the process of comparisons of statistics, such as ratios of investment to growth, taxes to deficit or government expenditure to GDP etc.
6. International comparisons in respect of income helps in determining eligibility & conditions of loans or other funds that are available.
7. NI data provides guide to make policies for growth and inflation.

METHODS OF CALCULATING NATIONAL INCOME

1. Income/Factor Income Method/Factor Payment Method/Distributed share Method.
2. Expenditure Method/Income Disposable Approach
3. Value Added Method/Product Method/Inventory/Output Method/Industrial Origin Method.

INCOME METHOD

1. Compensation of Employees (COE)
2. Operating Surplus (OS)
3. Mixed Income of Self Employed (MISE)

Compensation of Employees (COE)

- Wages and Salaries
- Bonus
- Employees Contribution to Social Security Scheme
- Gratuity

Operating Surplus

Income from Property and Entrepreneurship

↓

Rent

+

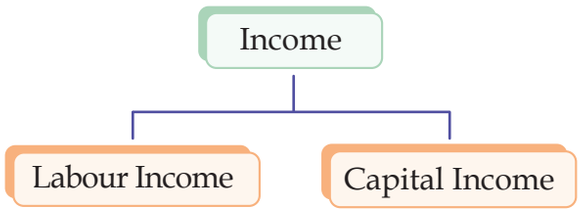
Interest

+

Profit

+

Royalty



Mixed Income

Labour Income + Capital Income

↓

Mixed Income of Self Employed (MISE)

In this Method:

1. Compensation of Employees (COE)

+

2. Operating Surplus(OS)

+

3. Mixed Incomes of Self Employed (MISE)

⇓

Domestic Income (NDP_{FC})

+

NFIA

⇓

NNP_{FC}

Operating Surplus = Rent + Interest + Profit + Royalty

Operating Surplus = Rent + Interest + Profit + Royalty

↓

We have to Calculate it.

Profit

Profit = Corporate Profit Tax + Dividend + Undistributed Profit

Profit = Profit After Tax + Corporate Tax

In this Method:

1. **Sabse Pehle hum Calculate Karenge → NDP_{FC} (Domestic Income)**
2. **Uske Baad NFIA Ko Add Kar denge $NNP_{FC} = NDP_{FC} + NFIA$**

Illustrations

Q. Calculate NI = NDP_{FC} + NFIA

Compensation of Employees CoE	1,200
Net Factor Income from Abroad (NFIA)	20
Net Indirect Taxes (NIT)	120
Profit (OS)	800
Private final consumption expenditure	2,000
Net domestic capital formation	770
Consumption of fixed capital	130
Rent (OS)	400
Interest (OS)	620
Mixed Income of self employed (MISE)	700
Net export	30
Govt. final consumption expenditure	1100

Ans. By Income Method

NNP_{FC} or NI = Compensation of Employees + Operating Surplus + Mixed Income of Self – Employed + NFIA

= 1200 + 1820 + 700 + 20

= 3740 Crores

NDP_{FC} = Compensation of Employees + Operating Surplus + Mixed Income of Self Employed

Q. Calculate the Operating Surplus with the help of following data

Particulars	₹ in Crores
Sales	4000
Compensation of Employees (COE)	800
GDP_{MP}	3400
Rent	400
Interest	300
Net Indirect Tax (NIT)	500
Consumption of Fixed Capital (Dep.)	200
Mixed Income	400

Ans. GDP_{MP} = 3400 Crores

NDP_{MP} = GDP_{MP} – Consumption of fixed capital

= 3400 - 200

= 3200 Crores

NDP_{FC} = NDP_{MP} – NIT

= 3200 – 500 = 2700 Crores

NDP_{FC} = Compensation of employees + Operating surplus + Mixed income

2700 = 800 + Operating Surplus + 400

Operating Surplus = 1500 Crores

Question

1. Wage = 100
Bonus = 50
Rent = 40
Interest = 20
Profit = 70
NNP_{FC} = ?

(*a*) 190 (*b*) 210
(*c*) 280 (*d*) 380

Answer

1. (*c*)

EXPENDITURE METHOD

Total/Aggregate Expenditure = GDP_{MP}

Determination of National Income

NPISH

+

Household ⇒ Pvt. Final Consumption Expenditure (c)

Investment⇒ Investment Expenditure/Gross Domestic Capital Formation (I)

Govt. ⇒ Govt. final consumption Expenditure (G)

Foreign ⇒ Net Export (N_x)

Total Expenditure = C + I + G + (X-M)	
Household Expenditure	Purchase of goods & Services
Government Expenditure	Purchase of Goods and Services
Investment Expenditure	Inventory Investment OR Change in stock Business Investment, Residential Investment Public Investment
Foreign Expenditure	Export - Import

Total Expenditure = C + I + G + (X-M) = GDP_{MP}

NNP_{FC} = GDP_{MP} – Dep. + NFIA – NIT

(I) Private Final Consumption Expenditure

⇓

Household Final Consumption Expenditure

+

Expenditure/Purchase of Non-Profit Institution Serving Household

In this Method:

GDP_{MP} = C + I + G + X-M

↓

Investment Expenditure ⇒ Gross Domestic Capital Formation (GDCF)

(i) GDCF = Net Domestic Capital Formation + Dep.

Net domestic Cap. Formation + Dep. = Gross Domestic Cap. Formation

1. Business Investment
+
2. Residential Investment
3. Public/Govt. Investment
4. Inventory investment

OR

Change in Stock = closing – opening

Gross fixed capital formation
+
Change in Stock
⇓
Investment Expenditure

Net Export = X – M

Net Import = 20 ⇒ N_x = – 20

Net Import = -40 ⇒ N_x = 40

Net Import = Import – Export

Points to be Noted

$GDP_{MP} = C + I + G + N_X$

$GDP_{MP} = C + I + G + (X - m)$

$NNP_{FC} = GDP_{MP} - Dep. + NFIA - NIT$

$GNP_{MP} = GDP_{MP} + NFIA$

Question

1. Calculate NNP_{FC}

C = 100, I = 100, G = 100, N_X = -50

IT = 40, NFIA = 20, Dep. = 10

(*a*) 210 (*b*) 230

(*c*) 220 (*d*) None

Answer

1. (*c*)

Step 1: Calculate $GDP_{MP} = C + I + G + N_X$

Step 2: $NNP_{FC} = GDP_{MP} - Dep. + NFIA - NIT$

$GDP_{MP} = M + I + G + (x-m)$	
Private final Consumption Expenditure	HH
Investment Expenditure OR Gross domestic Capital Formation	I = Gross Capital Formation = Net Domestic Capital Formation + Depreciation = Gross Fixed Capital formation + Δ Stock + Net Acquisition to Valuables. = Public Investment + Residential + Business + Inventory + Net Acquisition of Valuables
Net Export (N_X)	[X-M]

Q. From the following data, Calculate the GDP, GNP, NDP and NNP at both factor cost and market Prices.

Particulars	(₹ in Lakhs)
Gross Investment	120
Net exports N_x	15
Net Indirect Taxes (NIT)	5
Depreciation	20
Net factor income from abroad	10
Personal consumption expenditure	450
Government Purchases of goods & Services	150

Q. Calculate NNP_{FC} By Expenditure Method with the Help of Following Information-

Items	(₹ in Crores)
Private final Consumption expenditure	10

Net Import Nm	20
Public final consumption expenditure	05
Gross domestic fixed capital formation	350
Depreciation	30
Subsidy	100
Income paid to abroad (FITA)	20
Change in stock	30
Net acquisition of Valuables	10

Net Domestic Capital Formation – Depreciation = Gross Capital Formation

Depreciation = Gross Capital Formation – Net Capital Formation

Q. Calculate (a) Depreciation and FIFA (b) GDP at Market Price:

Items	(₹ in Crores)
GNP at FC	61,00
Net exports	(-)
Compensation of Employees (CoE)	3000
Rent	800
Interest	900
Profit	1,300
Net Indirect Taxes	300
Net Domestic Capital Formation	800
Gross Domestic Capital Formation	900
Factor Income to Abroad (FITA)	80

While using income method, capital gains, windfall profits, transfer incomes and income from sale of second-hand goods and financial assets and payments out of past savings are not included. However, Commissions, Brokerages and imputed value of services provided by owners of production units will be included as these add to the current flow of goods and services.

Income Method	Expenditure Method
NDP_{FC} = COE + OS + MISE	GDP_{MP} = C + I + G + (X – M)
NNP_{FC} = NDP_{FC} + NFIA	NNP_{FC} = GDP_{MP} – NIT + NFIA – Dep.

Q. Calculate NI

Items	(₹ in Crores)
Compensation of Employees (CoE)	1200
Net factor income from Abroad (NFIA)	20
Net indirect Taxes (NIT)	120
Profit	800
Private final consumption expenditure ©	2000
Net domestic capital formation	770

Consumption of fixed capital (Dep.)	130
Rent	400
Interest	620
Mixed income of Self-employed (MISE)	700
Net export	30
Govt. Final consumption expenditure (G)	1100
Operating Surplus (OS)	1820
Employer's contribution t0 social security scheme	300

VALUE ADDED METHOD

Country

Primary $\rightarrow$ GVA_{MP}

Secondary $\rightarrow$ GVA_{MP}

Tertiary $\rightarrow$ $\underline{GVA_{MP}}$

ΣGVA_{MP}

Gross Value Added

GVA_{MP} = Value of Output – Intermediate Cost $\rightarrow$ Purchase of Inputs + Bill

$\downarrow$ $\downarrow$ $\downarrow$

Sales + Change in Stock Raw Material Domestic Purchase

+

Import

GVA_{MP} = Value of Output – Intermediate Cost (IC)

$\downarrow$ $\downarrow$

Sales + Δstock

GVA_{MP} = Sales + Δstock – IC $GVA_{FC} = GVA_{MP} - NIT$

$NVA_{FC} = GVA_{MP} - Dep. - NIT$

$\Sigma GVA_{MP} = GDP_{MP}$

$\Sigma NVA_{FC} = NDP_{FC}$

$\Sigma NVA_{MP} = NDP_{MP}$

$\Sigma GVA_{FC} = GDP_{FC}$

$\Sigma GVA_{MP} = GDP_{MP}$

Illustrations

Q. Calculate National Income by Value Added Method with the help of following Data.

Particulars	(₹ in Crores)
Sales	700
Opening Stock	500
Intermediate Consumption (IC)	350
Closing Stock	400
Net Factor Income from Abroad	30

Depreciation	150
Excise Tax	110
Subsidies	50

Ans. $NVA_{(FC)} = GDP_{(MP)}$ – Depreciation + NFIA – Net Indirect Tax

Where $GVA_{(MP)}$ = Value of Output – Intermediate Consumption

Value of Output = Sales + Change in Stock

= 700 + (400 – 500) = 600

$GVA_{(MP)}$ = 600 – 350 = 250

Therefore NI = 250 – 150 + 30 – (110 – 50) = 70 Crores

Q. Calculate Net value Added of Factor Cost from the following data:

Items	(₹ in Crores)
Purchase of Materials (IC)	85
Sales	450
Depreciation	30
Opening Stock	40
Closing Stock	30
Excise Tax (IT)	45
Intermediate Consumption (IC)	200
Subsidies	15

Ans. $GVA_{(MP)}$ = Sales + Change in stock – Intermediate consumption

= 450 + (30 – 40) – 200 = 240 Crores

$NVA_{MP} = GVA_{MP}$ – Depreciation

NVA_{MP} = 240 – 30 = 210 Crores

$NVA_{FC} = NVA_{MP}$ – (Indirect Tax – Subsidies)

= 210 – (45 – 15) = 180 Crores

Q. Calculate national income by value added method

Particulars	(₹ in Crores)
Value of Output in Primary sector	2000
Intermediate consumption of primary sector	200
Value of output of secondary sector	2800
Value of output of tertiary sector	1600
Intermediate consumption of tertiary sector	600
Net Factor Income from Abroad (NFIA)	-30
Net indirect taxes	300
Depreciation	470
IC Secondary	800

Ans. $GDP_{(MP)}$ = (Value of output in primary sector – intermediate consumption of primary sector) + (Value of output in secondary sector – intermediate consumption of secondary sector) + (value of output in tertiary sector – intermediate consumption of tertiary sector)

Value of output in primary sector	=	2000
– Intermediate consumption of primary sector	=	200
+ Value of output in secondary sector	=	2800
- Intermediate consumption in secondary sector	=	800
+ Value of Output in tertiary sector	=	1600
- Intermediate consumption of tertiary sector	=	600
GDP_{MP}	=	₹4800 Crores

$NNP_{FC} = GDP_{MP}$ + NFIA – NIT – Depreciation

NNP_{FC} = National Income = 4800 + (-30) -300 – 470 = 4000 Crores

The values of the following items are also included:

(i) Own account production of fixed assets by government, enterprises and households.

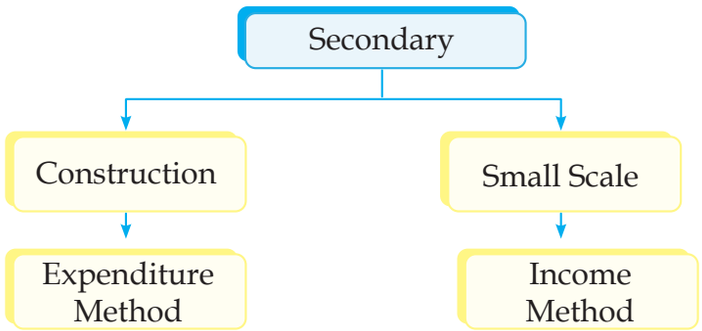
(ii) Imputed value of production of goods for self-consumption, and

(iii) Imputed rent of owner occupied houses

(iv) Changes in stock (inventory)

Income method may be most suitable for developed economies where people properly file their income tax returns. With the growing facility in the use of the commodity flow method of estimating expenditures, an increasing proportion of the national income is being estimated by expenditure method. As a matter of fact, countries like India are unable to estimate their national income wholly by one method. Thus, in the agricultural sector, net value added is estimated by the production method, in the small scale sector net value added is estimated by the income method and in the construction sector net value added is estimated by the expenditure method.

Primary → Value Added method



Questions

1. Read the following statements

I. 'Value Added' refers to the difference between value of output and purchase of intermediate goods.

II. 'Value added' represents the contribution of labour and capital to the production process.

(*a*) Statements I and II are incorrect.

(*b*) Statement I and II are correct.

(*c*) Statements I is correct and II is incorrect.

(*d*) Statement II is correct and I is incorrect.

2. What is the value of output in respect of following data?

	Amount (₹)
Net Value Added at Factor Cost	70,000
Intermediate Consumption	30,000
Goods and Services Tax	25,000
Subsidy	4,000
Depreciation	10,000

(*a*) ₹1,10,000 (*b*) ₹1,01,000

(*c*) ₹89,000 (*d*) None of these

3. Calculate Gross Value added at market price if sales = 750, opening stock = 300, closing stock = 200 and intermediate consumption is 250.

(*a*) 450 (*b*) 400

(*c*) 600 (*d*) 650

4. Value Added is calculated as the difference between the value of output and _____.

(*a*) Value of input (*b*) Intermediate consumption

(*c*) Final Consumption (*d*) Basic Consumption

5. Value added by each producing enterprise is also known as _____.

(*a*) GVA at market price (*b*) GVA at factor price

(*c*) GDP at market price (*d*) GDP at factor price

6. Under Value Added Method, the sum total of Gross Value Added at market price of each sector is called as:

(*a*) GVA_{MP} (*b*) GDP_{MP}

(*c*) GVA_{FC} (*d*) GDP_{FC}

7. Gross Value Added at Market Price (GVA_{MP}) = **(June 2024)**

(*a*) Value Output + Change in Stock

(*b*) Value of Output + Intermediate Consumption

(*c*) Sales + Change in stock – Intermediate Consumption

(*d*) Value of Output + Intermediate Consumption

8. What is the Value of output on the basis of following information?

Sales: ₹40,000 Lakhs

Opening Stock: ₹2,000 Lakhs

Closing Stock: ₹500 Lakhs

(*a*) ₹42,500 Lakhs (*b*) ₹42,000 Lakhs

(*c*) ₹41,500 Lakhs (*d*) ₹38,500 Lakhs

9. Product Method or Value-Added Method for calculation of National Income is also called:

(*a*) Income Disposal Method – Expenditure Method

(*b*) Industrial Origin Method OR Inventory Method OR Output Method

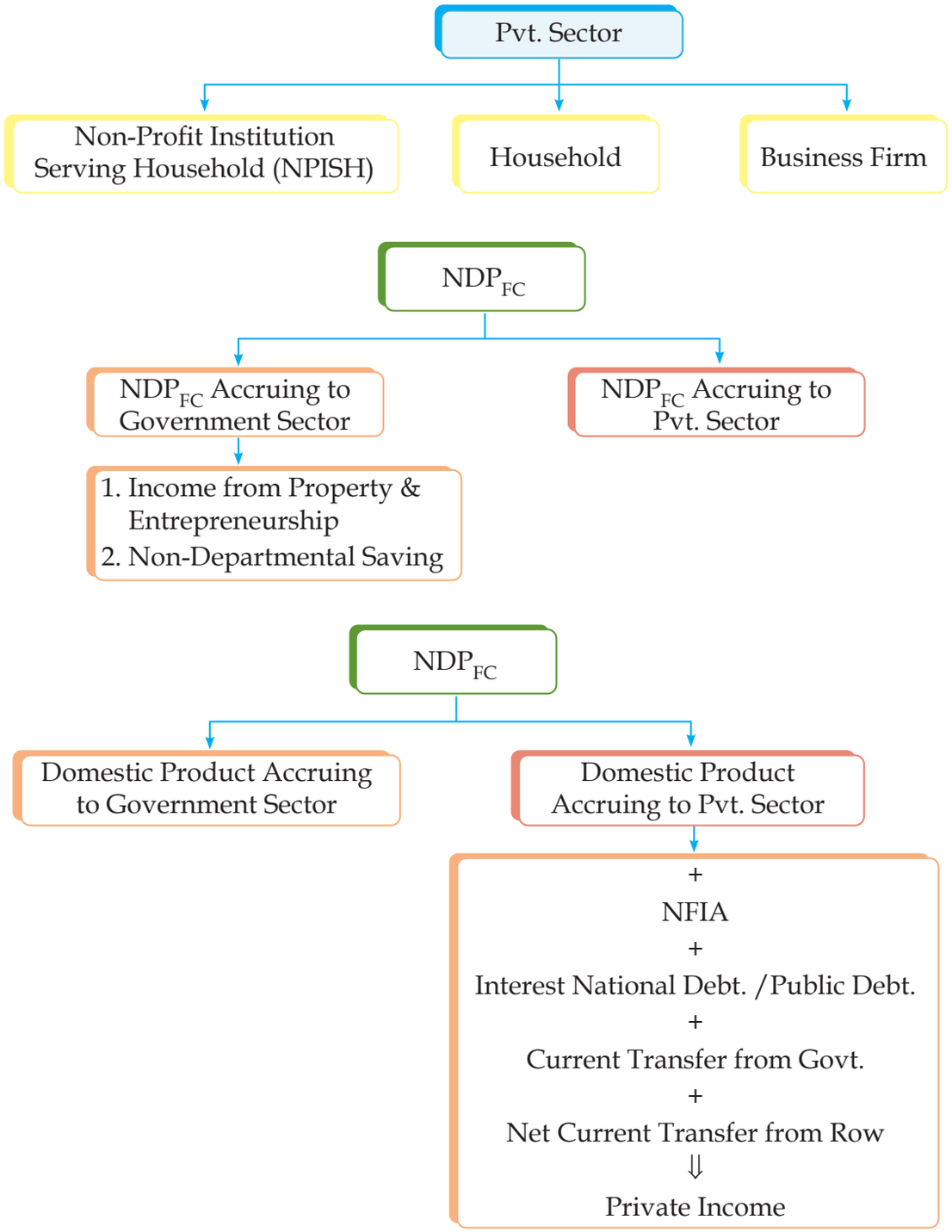
(*c*) Factor Payment Method

(*d*) Distributed Share Method

Answers

1. (*b*) **2.** (*d*) **3.** (*b*) **4.** (*b*) **5.** (*a*) **6.** (*c*) **7.** (*c*) **8.** (*d*) **9.** (*b*)

PRIVATE INCOME



- NDP$_{FC}$
- Domestic Product Accruing to Govt. Sector
  1. Income from Property and Entrepreneurship

2. Non-Departmental Saving

⇓

NDP_{FC} Accruing to Pvt. Sector

+

1. NFIA

+

2. Interest on National Debt.

+

3. Current Transfer from Govt.

+

5. Net Current Transfer from Row

⇓

Private Income

NDP_{FC}	–
Less: Income from property and Entrepreneurship accruing to Government Administrative Departments (Railways, Post Office etc.)	–
Less: Savings of Non-Departmental Enterprises	–
Income from Domestic Product Accruing to Private Sector	–
Add: NFIA	–
Add: National Debt. Interest	–
Add: Current Transfer from Government	–
Add: Other Net Current Transfer from rest of the world	–
Private Income	–

Personal Income

↓

Income of Personal Sector (HH + NPISH)

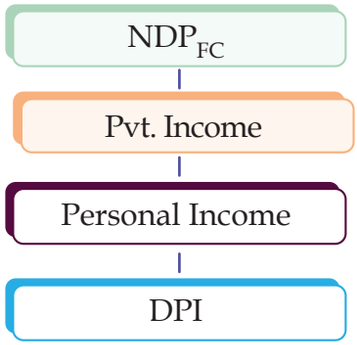
Pvt. Income → Pvt. Sector (HH + NPISH + Firm)

Profit = Corp. Tax + Dividend + Retained Earing

Pvt. Sector		
Non-Profit Institution Serving Household (NPISH)	Household	Business Firm
Personal Income = Pvt. Income – Corp. Tax – Retained Earning		

Private Income	–
Less: Undistributed Profits/Retained Earning	–
Less: Corporate Tax	–
Personal Income	–

Personal Income	–
Less: Personal Taxation/Direct Tax	–
Less: Non Tax Payments i.e., Fees, Penalty, Fines to Government	–
Disposable Personal Income	–



NDP_{FC}	–
Less: Income from Property and Entrepreneurship accruing to Government Administrative Departments (Railways, Post Office etc.)	–
Less: Savings of Non-Departmental Enterprises	–
Income from Domestic Product Accruing To Private Sector	–
Add: NFIA	–
Add: National Debt. Interest	–
Add: Current Transfer from Government	–
Add: Other Net current Transfers from rest of the world	–
Private Income	–
Less: Undistributed Profits	–
Less: Corporate Tax	–
Personal Income	–
Less: Personal taxation/Direct Tax	–
Less: Non-Tax Payment → Fee, Challan etc.	–
Disposable Personal Income	–

Questions

1. Which of the following is not true for personal Income? **(Jan. 2025)**

(*a*) It includes Non-Profit Institutions serving households

(*b*) It is income received by household sector

(*c*) It is a measure of actual current income receipts of persons only from productive activities

(*d*) It excludes retained earnings

2. Which of the following will give Personal Income?

(*a*) Private Income – Undistributed Corporate Profits – Profits Taxes

(*b*) Private Income + Undistributed Corporate Profits – Profits Taxes

(*c*) Prive Income + Undistributed Corporate Profits + Profits Taxes

(*d*) Private Income – Undistributed Corporate Profits – All Taxes

3. Disposable Personal Income

(*a*) Total Personal income left after tax deduction at source

(*b*) Personal Income-Direct Taxes paid by individual – Indirect Taxes paid by Individual

(*c*) Personal Income – Personal Income Taxes – Non-Tax Payments

(*d*) Personal Income – Indirect Taxes Paid by Individual

4. Calculate the aggregate value of depreciation when the GDP at market price of a country in a particular year was ₹1,100 Crores. Net Factor Income from Abroad was ₹100 Crores. The value of Indirect taxes – Subsidies was ₹150 Crores and National Income was ₹850 Crores.

(*a*) 100 (*b*) 200

(*c*) 300 (*d*) None

Answers

1. (*c*) **2.** (*a*) **3.** (*c*) **4.** (*b*)

Illustrations

Q. From the following data, estimate National Income and Personal Income.

Items	₹ in Crores
Net national Product at market Price (NNP_{MP})	1,891
Income from property and entrepreneurship accruing to government administrative departments	45
Indirect Taxes (IT)	175
Subsidies (Sub.)	30
Saving of Non-Departmental Enterprises	10
Interest on National Debt.	15
Current Transfer from Government	35
Current Transfers from rest of the world	20
Saving of Private Corporate Sector	25
Corporate Profit Tax	25

Q. From the following data, estimate Pvt. Income

Items	₹ in Crores
Net national Product at market Price (NNP_{MP})	1,891
Income from property and entrepreneurship accruing to government administrative departments	45
Indirect Taxes (IT)	175
Subsidies (Sub.)	30
Saving of Non-Departmental Enterprises	10
Interest on National Debt	15
Current Transfer from Government	35

Current Transfers from rest of the world	20
Saving of Private Corporate Sector	25
Corporate Profit Tax	25
NFIA	0

Q. From the following data, estimate National Income and Personal Income.

Items	₹ in Crores
Net national Product at market Price (NNP_{MP})	1,891
Income from property and entrepreneurship accruing to government administrative departments	45
Indirect Taxes (IT)	175
Subsidies (Sub.)	30
Saving of Non-Departmental Enterprises	10
Interest on National Debt	15
Current Transfer from Government	35
Current Transfers from rest of the world	20
Saving of Private Corporate Sector (Retained Earning)	25
Corporate Profit Tax	25

Ans. National Income = Net national product at market price – Indirect Taxes + Subsidies
= 1,891 – 175 + 30 = 1746 crores

Personal Income = National Income – Income from property and entrepreneurship accruing to government administrative departments – Saving of non-departmental enterprises + National Debt. Interest + Current transfers from government + Current transfers from rest of the world – Saving of private corporate sector – Corporate profit tax = 1746 – 45 – 10 + 15 + 35 + 20 – 25 – 25 = 1711 Crores.

Q. Calculate NNP at market price and Disposable Personal Income.

Items	₹ in Crores
NDP at factor cost	14,900
Income from domestic product accruing to government	150
Interest on National Debt	170
Transfer Payment by government	60
Net Private donation from abroad	30
Net factor income from abroad (NFIA)	80
Indirect Taxes	335
Direct Taxes	100
Subsidies	262
Taxes on Corporate	222
Undistributed Profits of Corporations	105

Ans. NNP at Market Price = NNP at factor cost + Indirect Tax – Subsidies

Where NNP at factor Cost = NDP_{FC} + NFIA

= 14900 + 80 = 14980

Therefore, NNP_{MP} = Therefore, NNP_{MP} = 14980 + 335 – 262 = 15053

Disposable Personal Income (DI) = PI – Personal Income Tax

PI = NI + Income received but not earned – Income earned but not received

= 4980 + 170 + 60 + 30 – 150 – 222 – 150 = 14763

Therefore, DI = 14763 – 100 = 14663 Crores

$$\text{Per Capital Income} = \frac{\text{National Income}}{\text{Population}} = \frac{\text{GDP}}{\text{Population}}$$

$$\text{Per Capita GDP} = \frac{\text{GDP}}{\text{Population}} \Rightarrow \text{Per Person Output}$$

Household + NPISH $\Rightarrow$ Personal Sector $\rightarrow$ Personal Income

Household + NPISH + Business Sector $\Rightarrow$ Pvt. Sector $\rightarrow$ Pvt. Income

OR

Firm Sector

In short, Private Income refers to the income (both factor income and transfer income) which accrues to private sector from all sources within and outside the country.

PERSONAL INCOME

- Personal Income is the income received by the household sector including Non-Profit Institutions Serving Households.
- In other words, it is the income 'actually paid out' to the household sector, but not necessarily earned.

=	National Income
–	Undistributed Profits | Retained Earning
–	Net Interest Payment made by households (Pay-received)
–	Corporate tax
+	Transfer Payments to the households from firms and government

PI = NI + income received but not earned - income earned but not received.

PI = NI - Undistributed profits Net interest payments made by households Corporate Tax + Transfer Payments to the households from firms and government.

1. **Net National Disposable Income (NNDI) =** Net National Disposable Income (NNDI) = Net National Income + other net current transfers from the rest of the world (Receipts less payments)

   Net National Disposable Income (NNDI) = NNI + net taxes on income and wealth receivable from abroad + net social contributions and benefits receivable from abroad.

2. **Gross National Disposable Income (GNDI) =** NNDI + CFC GNI + other net current transfers from the rest of the world (Receipts less payments)

3 Methods of Calculating National Income		
Income Method	**Expenditure Method**	**Value Added**
NDP_{FC} = COE + OS + MISE NNP_{FC} = NDP_{FC} + NFIA	GDP_{MP} = C + I + G + N_x GDP_{MP} = Σfinal Expn NNP_{FC} = GDP_{MP} – NIT – Dep. + NFIA	GVA_{MP} = Value of Output – IC ↓ Sales + ΔStock ΣGVA_{MP} = GDP_{MP} NNP_{FC} = GDP_{MP} – NIT – Dep. + NFIA

=	National Income
–	Undistributed Profits
–	Net Interest Payment made by households (Pay-received)
–	Corporate tax
+	Transfer Payments to the households from firms and government

FE + NIT = MP

Domestic + NFIA = National

National – NFIA = Domestic

Net + Dep = Gross

Gross – Dep = Net

Questions

1. PI = 800

Income received but not earned = 100

Income earned but not received = 40

NNP_{FC} = ?

(*a*) 700 (*b*) 740

(*c*) 660 (*d*) None

2. The concept of 'resident unit' involved in the definition of GDP denotes:

(*a*) A business enterprise which belongs to a citizen of India with production units solely situated in India.

(*b*) The unit having predominant economic interest in the economic territory of the country for one year or more irrespective of the nationality or legal status.

(*c*) A citizen household which had been living in India during the accounting year and one whose economic interests are solely in India.

(*d*) Households and business enterprises composed of citizens of citizens of India alone living in India during the accounting year.

3. The Problem of Double Counting may arise in which of the following methods of calculating national income?

(*a*) Profit Method (*b*) Product Method

(*c*) Income Metho (*d*) Expenditure Method

Answers

1. (*b*) **2.** (*b*) **3.** (*b*)

THE SYSTEM OF REGIONAL ACCOUNTS IN INDIA

- At present, practically all the states and union territories of India compute state income estimates and district level estimates.
- State Income or Net State Domestic Product (NSDP) is a measure in monetary terms of the volume of all goods and services produced in the state within a given period of time (generally a year) accounted without duplication.
- Per Capita State Income is obtained by dividing the NSDP (State Income) by the midyear projected population of the state.

Question

1. What is the formula to calculate Per Capital State Income?

(*a*) State Income × Money Multiplier

(*b*) $\frac{\text{State Income} \times \text{Money Multiplier}}{\text{Year end State Population}}$

(*c*) $\frac{\text{State Income}}{\text{Year end State Population}}$

(*d*) $\frac{\text{State Income}}{\text{Mid Year projected Population of the State}}$

Answer

1. (*d*)

- The state level estimates are prepared by the State Income Units of the respective State Directorates of Economics and Statistics (DESs).
- The Central Statistical Organisation assists the States in the preparation of these estimates by rendering advice on conceptual and methodological problems.
- In the preparation of state income estimates, certain activities such as railways, communications, banking and insurance and central government administration, that cut across state boundaries, and thus their economic contribution cannot be assigned to any one state directly are known as the 'Supra-regional sectors' of the economy.
- The estimates for these supra regional activities are compiled for the economy as a whole and allocated to the states on the basis of relevant indicators.

Questions

1. At present, _____ compute State Income estimates and district level estimates.

(*a*) All the states only

(*b*) All Union territories only

(*c*) All The States and Union territories of India

(*d*) Central Government

2. _____ is a measure in monetary terms of the volume of all goods and services produced in the State within a given period of time accounted without duplication.

(*a*) Net State Domestic Product (*b*) Net State Disposition Product

(*c*) Net State Generated Product (*d*) None of the above

3. The State level estimates are prepared by the State Income Unit of the respective state _____.

(*a*) Directorates of Commerce Wing (*b*) Directorates of Economic Affairs

(*c*) Directorates of Economic and Statistics (*d*) Directorates of CSO

4. In the preparation of State Level estimates the advice an conceptual and Methodological problems is rendered by _____.

(*a*) State Statistical Organization (*b*) State Directorates of Economics

(*c*) State Economic Affairs Organization (*d*) Central Statistical Organization

5. Which of the following is part of "Supra-Regional Sectors" of the Economy?

(*a*) Railways (*b*) Communications

(*c*) Central Government Administration (*d*) All of the above

Answers

1. (*d*) **2.** (*a*) **3.** (*c*) **4.** (*d*) **5.** (*d*)

LIMITATIONS AND CHALLENGES OF NATIONAL INCOME COMPUTATION

There are innumerable limitations and challenges in the computation of national income. The task is more complex in underdeveloped and developing countries. Following are the general dilemmas in measurement of national income.

There are many conceptual difficulties related to measurement which are difficult to resolve, such as:

(a) lack of an agreed definition of national income,

(b) accurate distinction between final goods and intermediate goods,

(c) issue of transfer payments,

(d) services of durable goods,

(e) difficulty of incorporating distribution of income,

(f) valuation of a new good at constant prices, and

(g) valuation of government services

Other challenges relate to:

(a) Inadequacy of data and lack of reliability of available data,
(b) presence of non-monetised sector,
(c) for self-consumption,
(d) absence of recording of incomes due to illiteracy and ignorance,
(e) lack of proper occupational classification, and
(f) accurate estimation of consumption of fixed capital

Questions

1. Choose the correct statement

(*a*) GNP includes earnings of Indian corporations overseas and Indian residents working overseas; but GDP does not include these

(*b*) NNP at FC = National Income = FID (factor income earned in domestic territory + NFIA

(*c*) Capital goods and inventory investment are excluded from computation of GDP

(*d*) NDPMP = GDPMP + Depreciation

2. Which of the following is added to national income while calculating personal income?

(*a*) Transfer payments to individuals

(*b*) Undistributed profits of corporate

(*c*) Transfer payments made to foreigners

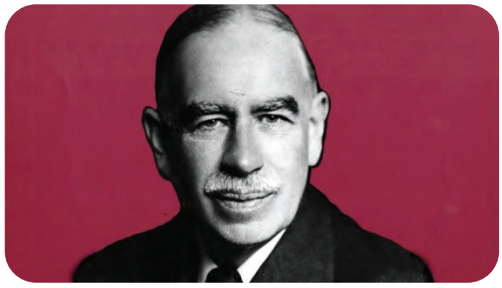
(*d*) Mixed income of self employed

Answers

1. (*a*) **2.** (*a*)

UNIT-2: THE KEYNESIAN THEORY OF DETERMINATION OF NATIONAL INCOME

Book → 1936 → John Maynard Keynes Theory of Employment, Interest and Money



SECTORS OF ECONOMY

4 sector Economy → Open Economy

1. Household Sector
2. Firm/business/corporation Sector
3. Government Sector
4. Foreign Sector/Row/ Rest of the world (Row)

3 Sector Economy (Closed Economy)

1. Household Sector
2. Firm/Business/Corporation Sector
3. Government Sector

2 Sector Economy (Closed Economy)

1. Household Sector
2. Firm/Business/Corporation Sector

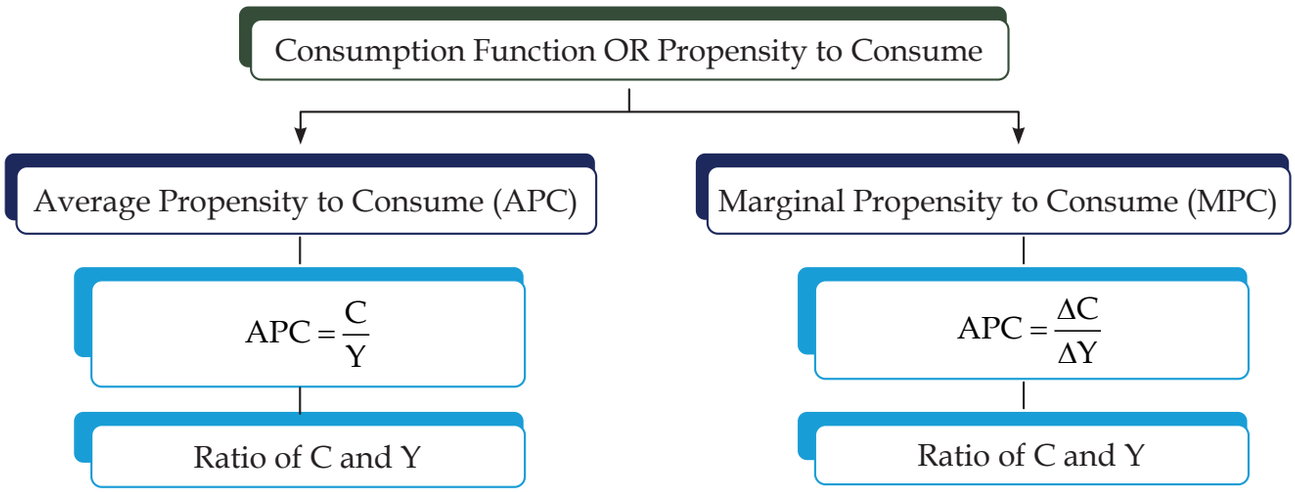
Closed Economy	Open Economy
1. 2 Sector Economy	1. 4 Sector Economy
2. 3 Sector Economy	
Income $\uparrow \rightarrow$ Consumption	$Y = 0 \Rightarrow \bar{C}$
$\uparrow$	$\downarrow$
$Y\downarrow \rightarrow C\downarrow$	Autonomous
Induced Consumption	Consumption $\bar{C}$

Consumption (c) = Autonomous Consumption + Induced Consumption

CONSUMPTION FUNCTION

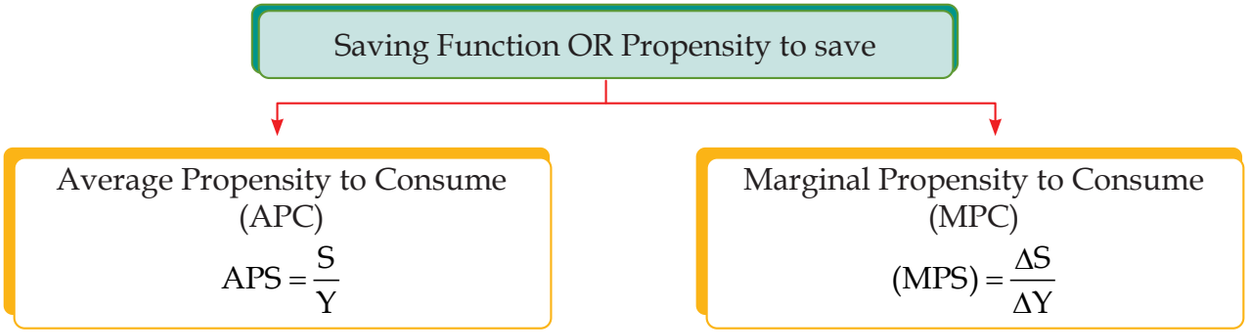
It is functional relationship between consumption and income

i.e. **C = f(y)**



Consumption (C) = Autonomous Consumption + Induced Consumption

Saving function is functional relationship b/w Saving and Income i.e. S = f (y)



$APC = \frac{C}{Y}$

$APS = \frac{S}{Y}$

$MPC = \frac{\Delta C}{\Delta Y}$

$MPS = \frac{\Delta S}{\Delta Y}$

2 sector Economy → No Govt.

Income (Y) = Disposable Income (Y_d)

Questions

1. C = 50 + 0.75 y
Saving = ?

(*a*) –50 + 0.75Y
(*b*) –50 + 0.25Y
(*c*) 100 + 0.25Y
(*d*) –50 – 0.25 Y

2. According to Keynes, consumption expenditure is determined by

(*a*) The level of interest rates
(*b*) Extent of government taxes and subsidies
(*c*) Disposable income
(*d*) Autonomous investment expenditure

3. What will be the value of average propensity to save when-

(i) C = 200 at Y = 1000

(ii) S = 450 at y = 1200

(*a*) 0.8, 0.7 (*b*) 0.7, 0.8

(*c*) 0.8, 0.375 (*d*) 0.375, 0.8

4. The Marginal Propensity to Consume (MPC) can be defined as:

(*a*) A change in spending due to a change in income

(*b*) A change in income that is saved after consumption

(*c*) Part of income that is spent on consumption

(*d*) Part of income that is not saved

5. If the consumption function is expressed as C = a + by then b represents:

(*a*) Autonomous consumer expenditure when income is zero

(*b*) The marginal propensity to consume

(*c*) The expenditure multiplier when consumption is increased

(*d*) Part of disposable income

6. If the consumption function is expressed as C = a + by then a represents:

(*a*) Autonomous consumer expenditure (*b*) The marginal propensity to consume

(*c*) The consumption income relationship (*d*) Non- linear consumption function

7. If the consumption function is underline C = 20 + 0.5 Yd, then an increase in disposable income by ₹100 will result in an increase in consumer expenditure.
By ₹_____.

(*a*) 25 (*b*) 70

(*c*) 50 (*d*) 100

8. If the autonomous consumption equals ₹2,000 and the marginal propensity to consume equals 0.8. if disposable income equals ₹10,000, then total consumption will be ₹_____.

(*a*) 8,000 (*b*) 6,000

(*c*) 10,000 (*d*) None of the above

9. MPC = 1
MPS = ?

(*a*) 1 (*b*) 0

(*c*) Both (*a*) and (*b*) (*d*) None of the above

Answers

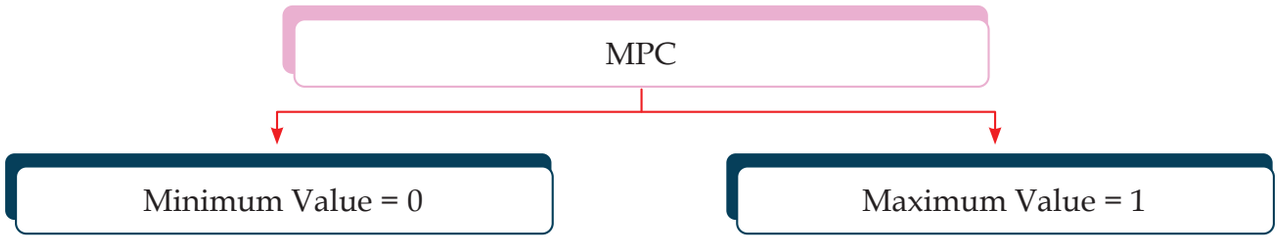
1. (*b*) **2.** (*b*) **3.** (*b*) **4.** (*a*) **5.** (*b*) **6.** (*a*) **7.** (*c*) **8.** (*c*) **9.** (*b*)

$APC = \frac{C}{Y}$ $APS = \frac{S}{Y}$

↓ ↓

APC Cannot be Negative APS can be Negative

APC can be more than 1



Increase in rate of Consumption < Increase in rate of Y

Psychological Law of Consumption

Questions

1. The ratio of total consumption to total income is known as: **(Jan 2025)**

(*a*) Marginal Propensity to Consume (MPC)

(*b*) Average Propensity to Consumption (APC)

(*c*) Saving Function

(*d*) Income Function

2. Calculate APS = ?

C = 300

Y = 1200

(*a*) 0.50 (*b*) 0.25

(*c*) 0.75 (*d*) 0.80

3. Marginal Propensity to Consume is: **(Jan 2025)**

(*a*) Always less than unity but greater than zero

(*b*) Zero when the income is zero

(*c*) Greater than one when income rises

(*d*) It does not depend on income

4. The consumption function is a functional relationship between aggregate consumption and: **(Jan 2025)**

(*a*) Aggregate demand (*b*) Aggregate disposable income

(*c*) Aggregate supply (*d*) Savings

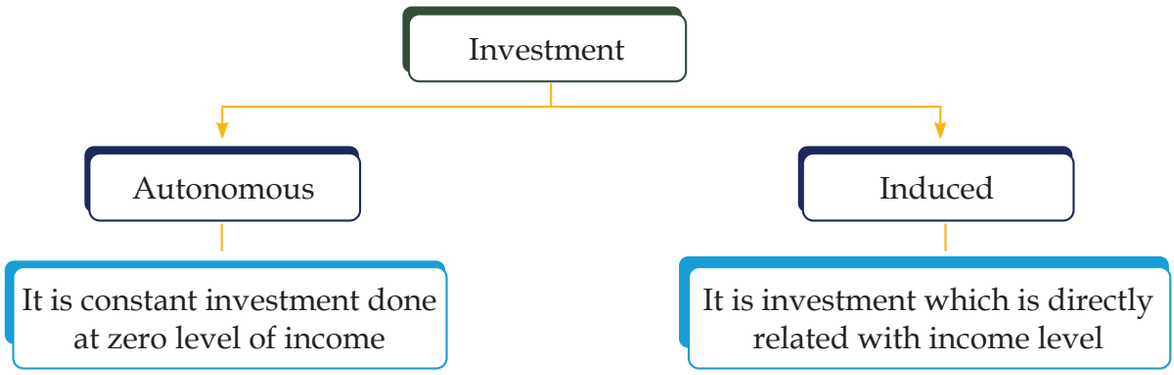
5. The saving curve of an economy makes a negative intercept of ₹60 Crores and 30% of additional income is saved. As regards this data, which of the following is correct?

(*a*) C = -60 + 0.3(Y) (*b*) C = 60 + 0.3 (Y)

(*c*) S = 60 + 0.3 (Y) (*d*) None of the above

Answers

1. (*b*) **2.** (*b*) **3.** (*b*) **4.** (*b*) **5.** (*a*)



AGGREGATE DEMAND (AD)

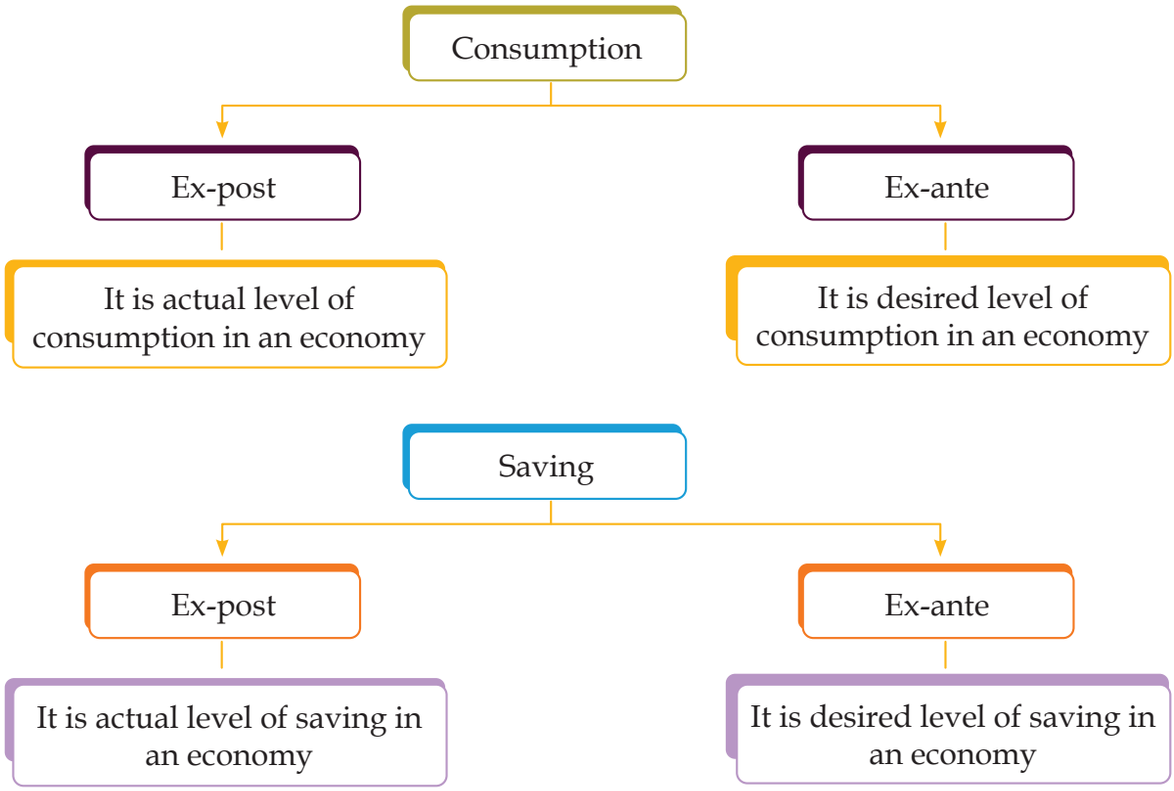
1. 2 Sector Economy (H,F) ⇒ (AD = C + I)
2. 3 Sector Economy (H,F,G) ⇒ (AD = C + I + G)
3. 4 Sector Economy ⇒ AD = C + I + G + (X – M)

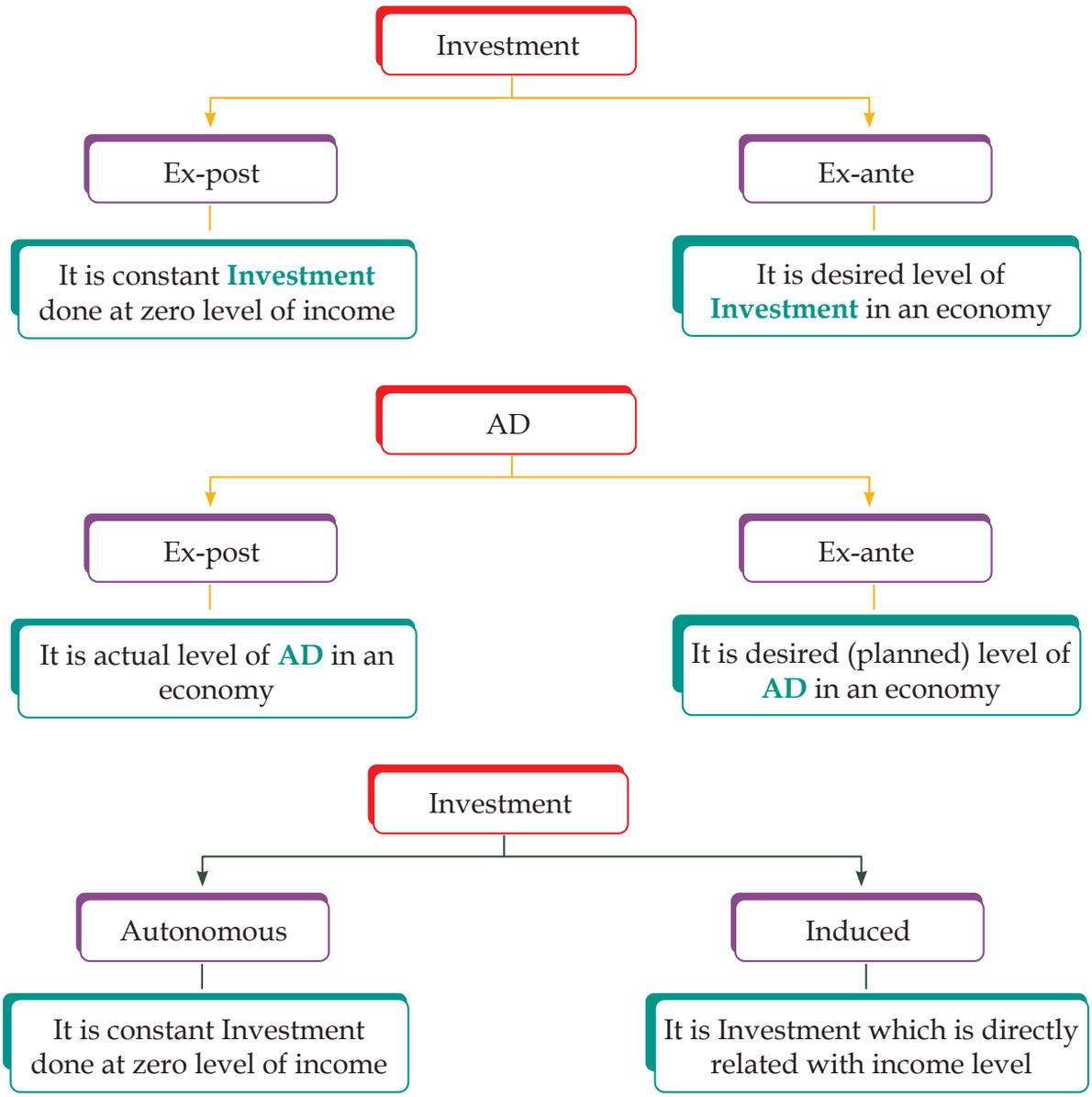
AGGREGATE DEMAND (AD) OR AGGREGATE EXPENDITURE (AE)

It is the sum total of demand of all goods and services by all the buyers. Ad is also referred as total planned expenditure.

Ex-ante/planned = Expected/desired Intended → Later

Ex-post/Unplanned = Actual → Now





2 Sector Economy

Aggregate/Total Expenditure = C + I = Aggregate Demand (AD)

Question

1. Ad ?

C = 100

MPS = 0.2

I = 50

Y = 1000

(*a*) 350 (*b*) 750

(*c*) 850 (*d*) 950

Answer

1. (*d*)

Total output = 100

OR

Total Supply

↓

Aggregate Supply (AS)

AS = Y = C + S

↓ ↓

Output Income

AGGREGATE SUPPLY (AS)

Ex ante or planned aggregate supply is **the total supply of goods and Services** which firms in a nation economy plan on selling during a specific time period.

Y = AS = Total Production/Output

DETERMINATION OF EQUILIBRIUM INCOME

Determination of Equilibrium Income

↓

AD = AS

OR

AD = Y

Injection = Leakage

OR

AE = Y

EQUILIBRIUM OUTPUT

Equilibrium Output occurs when **desired amount of output demand** in economy exactly equals **amount produced** in given time period.

TWO SECTOR MODEL

- Here we study – Household Sector and Business Sector
- AD = C + I (I is assumed to be constant)
- AS = C + S
- Equilibrium is achieved when –
- AD = AS or I = S

AD > AS

- When **AD > AS** then it means Leakages < Injection

1. This situation is know as Stock Shortage or Excess Demand

2. **Excess demand** makes businesses to **sell more than** what they currently produce.

3. The **unexpected sales** would draw inventories and result in less inventory investment than business firms planned.
4. They will react by **hiring more workers** and **expanding production.**
5. This will **increase the nation's aggregate** income. (national income will rise)

AD > AS → Inventory ↓→ Y ↑

AD < AS

- When AD > AS then it means Leakages < Injection

1. This situation is know as Stock Surplus or Deficient Demand
2. It means that people are spending lesser volume of money on consumption
3. Thus inventories of good will pile up.
4. Consequently, firms would decrease their production in future which would lead to a fall in output and income in future. (National income will fall)

AD < AS → Inventory ↑ → Y ↓

Illustrations

Q. Calculate marginal propensity to consume and marginal propensity to save from the following data about an economy which is in equilibrium: National income = 2500, Autonomous consumption expenditure = 300, Investment expenditure = 100.

Ans. Y = C + I

By putting the value we get, 2500 = C + 100

C = 2500 – 100 = 2400

C = C + by

2400 = 300 + 2500 b

2400 – 300 = 2500b

B = 0.84; MPS = 1 – MPC = 1 – 0.84 = 0.16

Q. An economy is in equilibrium. Calculate national income from the following Autonomous consumption = 100; Marginal propensity to save = 0.2; Investment expenditure = 200

Ans. Y = C + I

Y = C + MPC (Y) + where MPC = 1- MPS

Y = 100 + 0.8Y + 200 = 300 + 0.8Y

Y – 0.8Y = 300

0.2Y= 300,

Y = 1500

Q. Suppose the consumption of an economy is given by c = 20 +0.6 Y and investment I = 10 + 0.2 Y. what will be the equilibrium level of National Income?

(*a*) 1500 (*b*) 150

(*c*) 15000 (*d*) 140

Ans. Y = C + I =20 + 0.6 Y + 10 + 0.2 Y

Y = 30 + 0.8 Y

Y – 0.8 Y = 30

Y = 150

Question

1. In a closed economy, aggregate demand is the sum of

(*a*) Consumer expenditure, demand for exports and government spending

(*b*) Consumer expenditure, planned investment spending and government spending

(*c*) Consumer expenditure, actual investment spending government spending and net exports

(*d*) Consumer expenditure, planned investment spending government spending and net exports

Answer

1. (*b*)

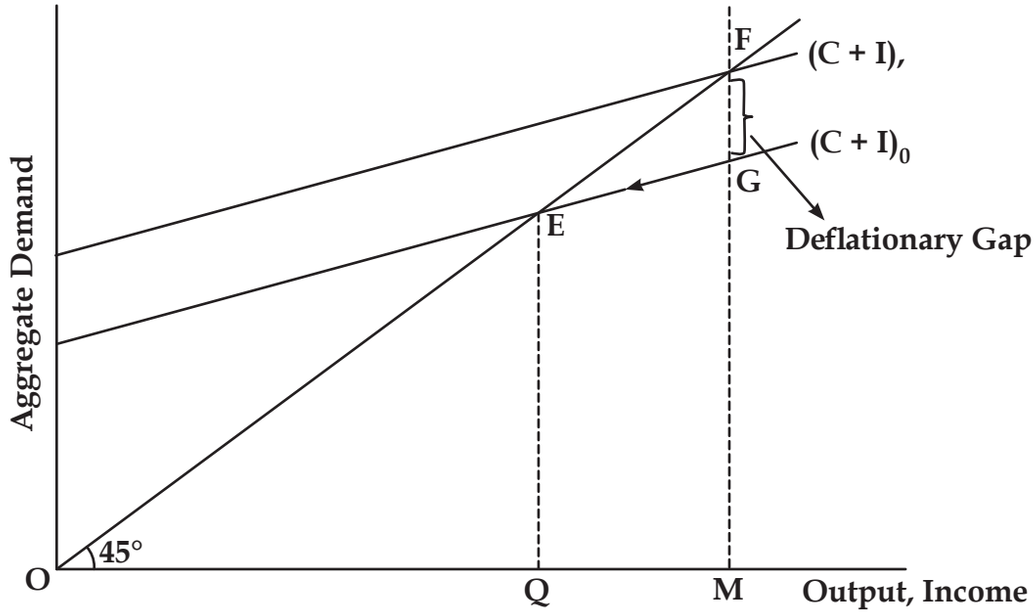
AD = C + I
AS OR Y = C + S
Equilibrium Income or Output
AD = AS
C + I = Y
Potential Output OR GDP
↓
Maximum Output
↓
Full Employment Level of Output
OR
Natural rate of unemployment → output
Actual Output < Potential GDP
D↓ S↑
↓
Price Level↓
Deflation
P↓→ Profit↓
↓
Output↓
↓
Employment↓
↓
National Income↓

1. Deflationary Gap: If the aggregate demand is for an amount of output less than the full employment level of output, then we say there is deficient demand.

Deficient demand gives rise to a 'deflationary gap' or 'recessionary gap'.

Recessionary gap also known as 'contractionary gap' arises in the Keynesian model of the macro economy when the equilibrium level of aggregate production achieved in the short-run falls short of what could be produced at full employment.

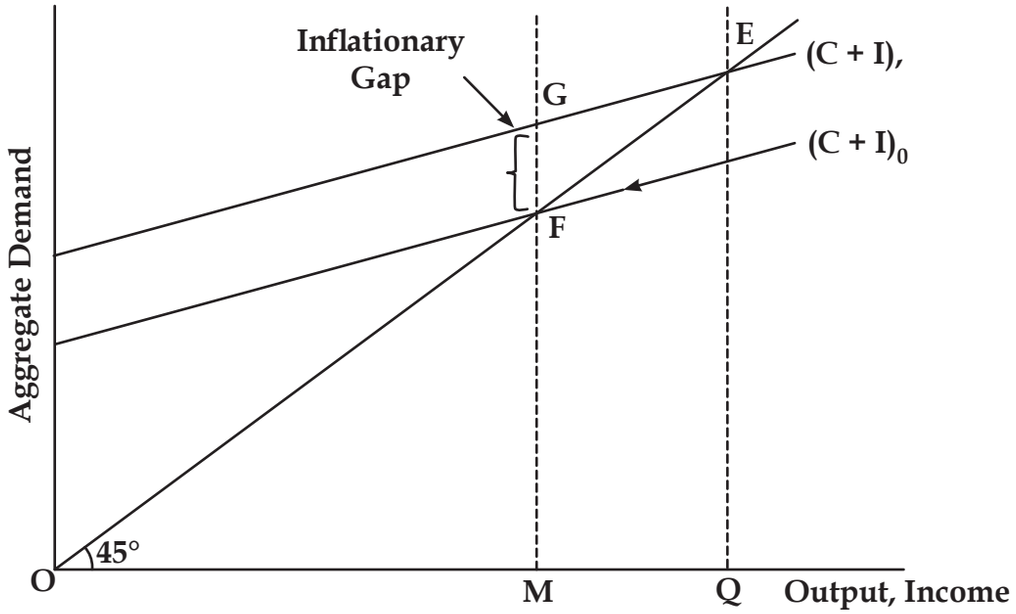
Recessionary gap occurs when the economy is in a business-cycle contraction or recession.



2. Inflationary Gap: If the aggregate demand is for an amount of output greater than the full employment level of output, then we say there is excess demand.

Excess demand gives rise to 'inflationary gap' which is the amount by which actual aggregate demand exceeds the level of aggregate demand required to establish the full employment equilibrium.

This is the sort of gap that tends to occur during a business-cycle expansion and sets in motion forces that will cause demand pull inflation.



Questions

1. Keynes believed that an economy may attain equilibrium level of output

(*a*) Only at the full-employment level of output

(*b*) Below the full-employment level of output

(*c*) Only if prices were inflexible

(*d*) (*a*) and (*b*) above

2. In the Keynesian cross diagram, the point at which the aggregate demand function crosses the 45-degree line indicates the

(*a*) Level of full employment income

(*b*) Level than full employment level of income

(*c*) Equilibrium level of income which may or may not be full employment level of income

(*d*) Autonomous level of income which may not be full employment level of income

Answers

1. (*b*) **2.** (*c*)

INVESTMENT MULTIPLIER

The investment multiplier explains how many times the equilibrium aggregate income increases as a result of an increase in autonomous investment. When the level of investment increases by an amount, say Δ ΔI, the equilibrium level of income will increase by some multiple amounts, Δ Δ Y. The ratio of Δ ΔY to ΔI is called the investment multiplier, k.

$$\text{Formula k} = \text{k} = \frac{\Delta Y}{\Delta I}$$

Or

$$\frac{\Delta Y}{\Delta I} = \frac{1}{1} - \text{MPC} = \frac{1}{\text{MPS}}$$

Questions

1. C = 100 + 0.8Y

K = ?

(*a*) 50 (*b*) 0.5

(*c*) 5 (*d*) None

2. S = – 10 + 0.5 Y

K = ?

(*a*) 5 (*b*) 2

(*c*) 3 (*d*) 1

3. In an economy investment expenditure is increased by ₹400 Crores and marginal propensity to consume is 0.8. Calculate the total increase in income and saving.

(*a*) 2000 (*b*) 4000

(*c*) 6000 (*d*) 8000

4. $\Delta I = 300$
MPC = 0.6
$\Delta Y = ?$

(*a*) 100 (*b*) 300
(*c*) 650 (*d*) 750

Answers

1. (*c*) **2.** (*b*) **3.** (*a*) **4.** (*d*)

Illustrations

Q. An increase in investment by 400 Crores leads to increase in national income by 1,600 Crores. Calculate marginal propensity to consume.

(*a*) 0.25 (*b*) 0.75
(*c*) 0.50 (*d*) 7.50

Ans. Increase in investment (ΔI) = 400 Crores
Increase in national income (ΔY) = 1,600 Crores
Multiplier (K) = $\Delta Y/\Delta I$ = K = 1,600/400 = 4
We know, K = 1/1 – MPC
4 = 1/1 – MPC
$\Rightarrow$ MPC = 0.75

Q. In an economy, investment is increased by ₹600 Crores. If the marginal propensity to consume in 0.6, calculate the total increase in income and consumption expenditure.

(*a*) 1500, 900 (*b*) 900, 1500
(*c*) 3000, 1800 (*d*) 1800, 3000

Ans. MPC = 0.6; ΔI = ₹600 Crores
Multiplier (K) = 1/1- MPC = 1/1 – 0.6 = 1/04 = 25
Increase in income (ΔY) = K × ΔI = 2.5 × ₹600 Crores = ₹1,500 Crores
Increase in consumption (ΔC) = ΔY × MPC = ₹1, 500 Crores × 0.6 = ₹900 Crores.

Q. Suppose in a country investment increases by ₹100 Crores and consumption is given by C = 10 + 0.6 Y (where C = consumption and Y = income). How much increases will there take place in income?

(*a*) 25 (*b*) 250
(*c*) 2500 (*d*) 25000

Ans. Multiplier = k = $\frac{1}{1-MPC}$

k = $\frac{1}{1-0.6} = 2.5$

Substituting the value of k and ΔI value in $\Delta Y = k\Delta I$
ΔY = 2.5 × 100 = ₹250 Crores
Thus, increase in investment by ₹100 Crores will cause equilibrium income to rise by ₹250 Crores.

The Leakages are caused due to

1. Progressive rates of taxation which result in no appreciable increase in consumption despite increase in income.
2. High liquidity preference and idle saving or holding of cash balance and an equivalent fall in marginal propensity to consume.
3. Increased demand for consumer goods being met out of the existing stocks or through imports.
4. Additional income spent on purchasing existing wealth or purchase of government securities and shares from shareholders or bondholders.
5. Undistributed profits of corporations
6. Part of increment in income used for payment of debts.
7. Case of full employment additional investment will only lead to inflation, and
8. Scarcity of goods and services despite having high MPC.

The more powerful these leakages are, the smaller the value of multiplier

3 Sector Model

1. Household Sector
2. Firm Sector
3. Govt. Sector
   (*a*) Govt. Extension
   (*b*) Tax
   (*c*) Transfer (Subsidies)

3 Sector model

$AD = C + \bar{I} + \bar{G}$

$AS = Y = C + S + T$

Equilibrium

$AD = Y$

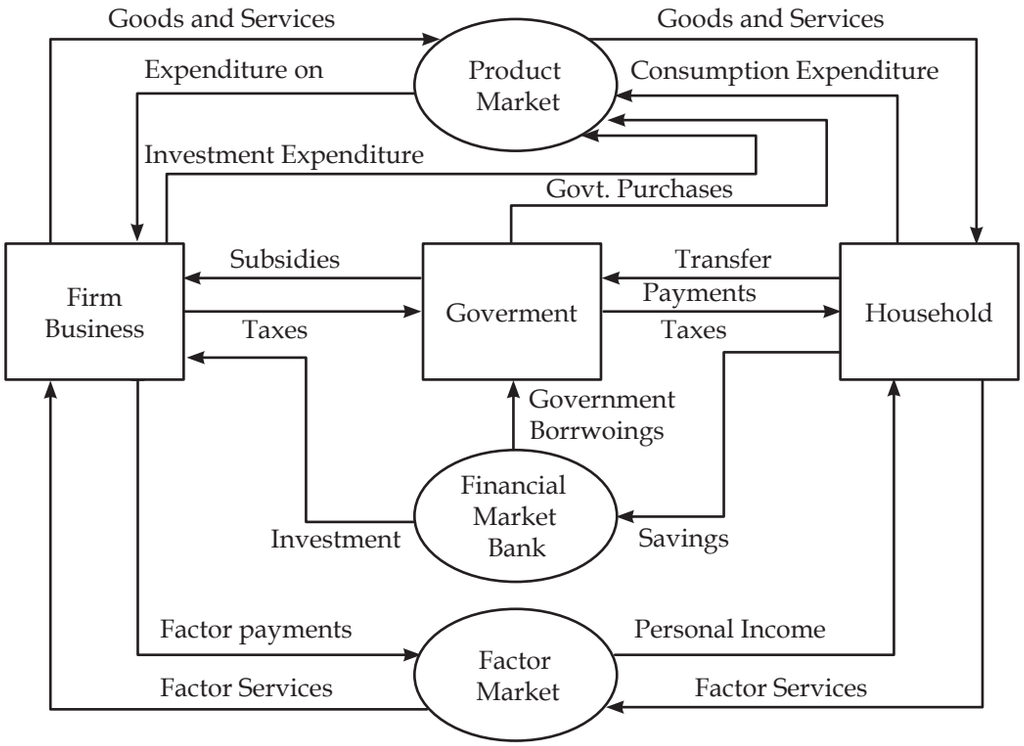
OR

$C + I + G = Y$

3 Sector model

$$AD = AS$$
$$\downarrow \quad \downarrow$$
$$C + I + G = C + S + T$$
$$I + G = S + T$$
$$\downarrow \quad \downarrow$$
$$\text{Injection} = \text{Leakage}$$

CIRCULAR FLOW IN A THREE SECTOR ECONOMY



Disposable Income (Y_d)

$Y = 100$
$T = 10$
$Y_d = Y - T$
$= 100 - 10$
$Y_d = 90$

$Y = 100$
$T = 10$
$TR = 2$
$Y_d = Y - T + TR$
$= 100 - 10 + 2$
$Y_d = 92$

Question

1. $Y = 100$, Tax = 9, Transfer = 2, $Y_d = ?$

(*a*) 93 (*b*) 91
(*c*) 90 (*d*) 84

Answer

1. (*a*)

Illustrations

Q. Calculate Equilibrium Income

(i) $C = 100 + 0.8Y_d$
$T = 50$
$TR = 50$
$I = 100, G = 100$

Ans. $C + I + G = Y$

$100 + 0.8 (Y - T + TR) + 100 + 100 = Y$

$300 + 0.8 (Y - 50 + 50) = Y$

$300 + 0.8Y = Y$

$300 = Y - 0.8Y$

$300 = 0.2Y$

$Y = 1500$

(ii) $C = 100 + 0.8Y_d$

Tax = 50

I = 100

G = 100

Ans. $C + I + G = Y$

$100 + 0.8Y_d + 100 + 100 = Y$

$100 + 0.8 (Y - T + TR) + 200 = Y$

$300 + 0.8 (Y - 50 + 0) = Y$

$300 + 0.8Y - 40 = Y$

$260 = Y - 0.8Y$

$Y = 1300$

Q. Suppose we have the following data about a simple economy:

$C = 10 + 0.75Y_d$, I = 50, G = T = 20

Find out the equilibrium level of national income.

Ans.

(*a*) $Y = C + I + G$

$Y = a + bY_d + I + G$

$Y = 10 + 0.75 (Y - 20) + 50 + 20$

$Y = 10 + 0.75 Y - 15 + 50 + 20$

or, $Y - 0.75 Y = 65$

or, $Y (1 - 0.75) = 65$

or, $Y = 65/.25 = 260$

The equilibrium value of Y = 260

Q. Suppose the structural model of an economy is given –

C = 100 + 0.75 Yd; I = 200, G = T = 100; TR = 50, find the equilibrium level of income?

(*a*) 14500 (*b*) 145

(*c*) 1450 (*d*) 1550

Ans. $Y = C + I + G$

$Y = 100 + 0.75\ Yd + 200 + 100$

$Y = 100 + 0.75\ (Y - 100 + 50) + 200 + 100$

$Y = 100 + 0.75Y - 75 + 37.5 + 200 + 00$

$Y = 1450$

Q. $C = 50 + 0.9Y_d$

$G = T = 25$

$I = 50$

$TR = 50$

$Y = ?$

$C = 50 + 0.9\ Y_d$

$= 50 + 0.9\ (Y\text{-}I+TR)$

$= 50 + 0.9\ (Y - 25 + 50)$

$= 50 + 0.9Y + 22.5$

$C = 72.5 + 0.9Y$

Q. $C + 1 + G = Y$

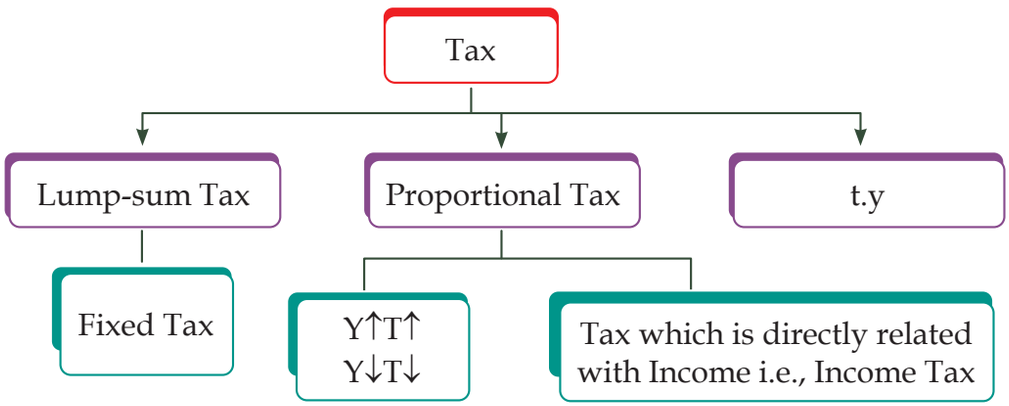
$72.5 + 0.9Y + 50 + 2.5 = Y$

$147.5 = Y - 0.9Y$

$147.5 = 0.1\ Y$

$147.5 = Y$

$1475 = Y$



Questions

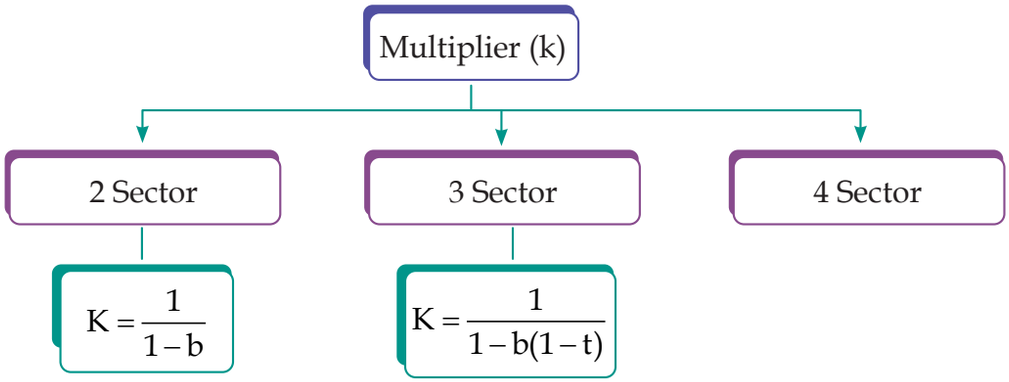
1. Suppose C = 100 + 0.80 (Y – T + TR); I = 200; T = 25 + 0.1Y; TR = 50; G = 100. Find out equilibrium level of Income?

(*a*) 1400 (*b*) 440.91

(*c*) 150.80 (*d*) 340.8

Answer

1. (*b*)



Q. C = 100 + 0.75Y

T = 20

$$K = \frac{1}{1-b(1-t)}$$

$$= \frac{1}{1-0.75\,(1-0)}$$

$$\frac{1}{1-0.75(1)} = 4$$

Q. Suppose C = 100 + 0.80 (Y – T + TR); I = 200; T = 25 + 0.1Y; TR = 50; G = 100 Find out k ?

Q. For a closed economy, the following data is given –

C = 75 + 0.5 (Y–T); I = 80; T = 25 + 0.1 Y; G = 100.

(*a*) Find out equilibrium income? (*b*) What is the value of multiplier?

Ans.

(*a*) Y = C + I + G

Y = 75 + 0.5 (Y – 25 – 0.1Y) + 80 + 100

Y(1 – 0.5 + 0.05) = 75 – 12.5 + 80 + 100

$$Y = \frac{1}{1-0.5+0.05}(242.5)\ (242.5)$$

Y = 440.91

(*b*) Multiplier = $\frac{1}{1-b(1-t)}$ = 1/[1-0.5 (1-0.1)] = 1.82

Q. Suppose we have the following data about a simple economy:

$C = 10 + 0.75Y_d$, I = 50, G = T = 20

(a) What is the size of the multiplier?

(*a*) 1 (*b*) 2

(*c*) 3 (*d*) 4

2 Sector Economy AD = C + $\bar{I}$ AS or Y = C + S	3 Sector Economy AD = C + I + G AS/Y = C + S + T	4 Sector Economy OR Open Economy
H, F	H, F, G	H, F, G, Row
Closed Economy		

4 Sector Model

AD = C + I + G + X – M

AD = C + I + G + NX

AS or Y = C + S + T

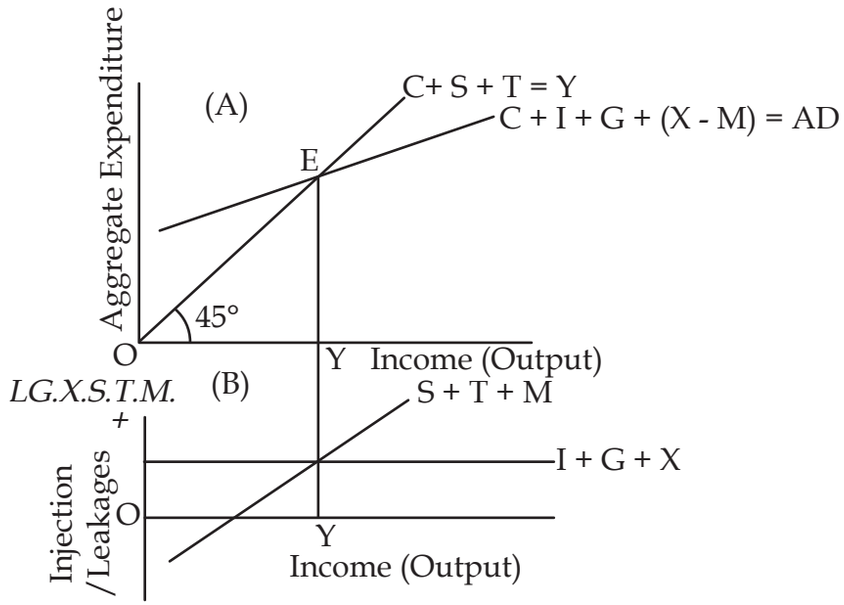
Q. Find the aggregate demand, when consumption is ₹2000 crores, investment is ₹700 Crores, Government Spending is ₹750 Crores, total exports is ₹150 Crores and total expenditure on imports are 50 Crores.

(*a*) 3550 Cr. (*b*) 3300 Cr.

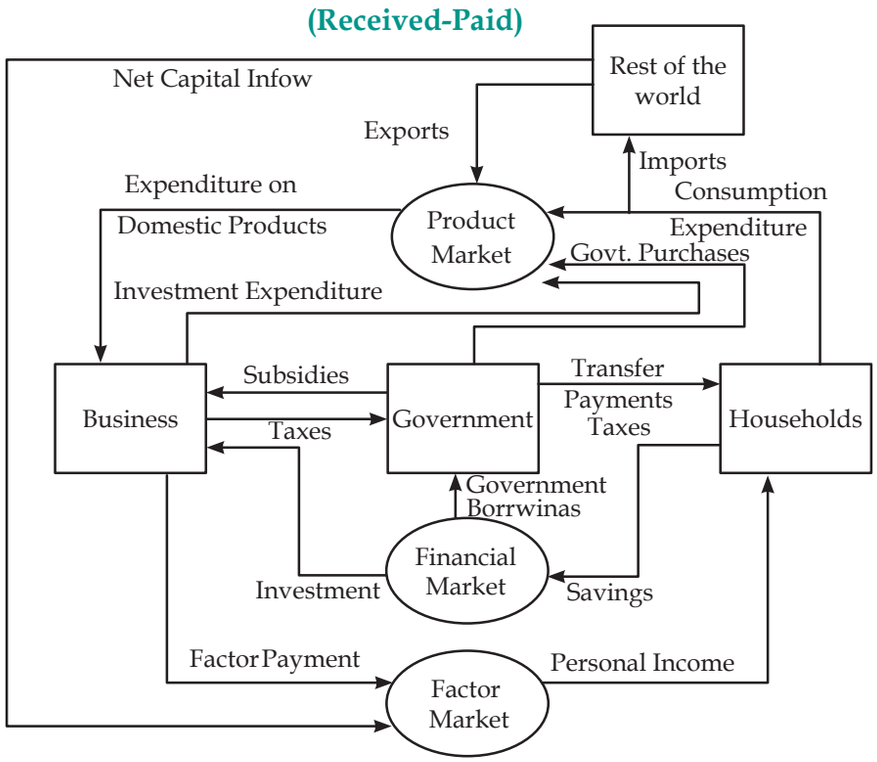
(*c*) 3600 Cr. (*d*) 3350 Cr.

Leakages		Injections
2 Sector	Savings	Investment
3 Sector	Savings + Taxes	Investment + Govt. Exp.
4 Sector	Savings + Taxes + Imports	Investment + Govt. Exp. + Exports

DETERMINATION OF EQUILIBRIUM INCOME: FOUR SECTOR MODEL



CIRCULAR FLOW IN A FOUR SECTOR ECONOMY



In the four sector model, there are three additional flow namely: exports, imports and net capital inflow.

Net capital inflow = Received - Paid

Net Capital inflow is difference b/w

Capital outflow and capital inflow from RoW.

Question

1. In the four sector model, which of the following additional flow is considered as compared with three sector model?

(*a*) Exports (*b*) Imports

(*c*) Net Capital Inflow (*d*) All of the above

Answer

1. (*d*)

Equilibrium Under 4 Sector Model

$$AD = AS$$

$$C + I + G + (X - M) = C + S + T$$

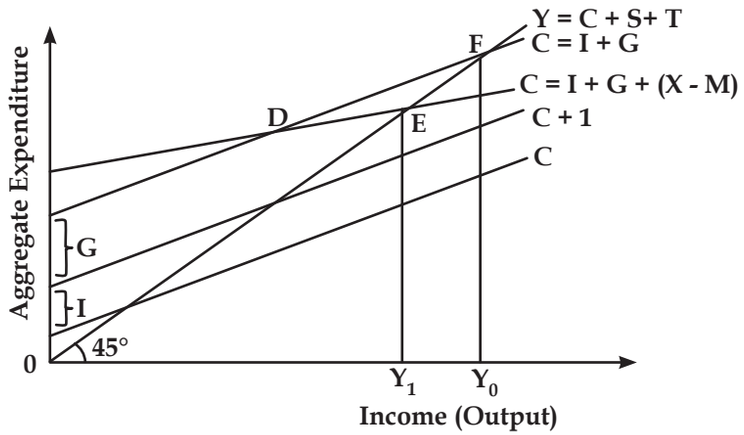
$$C + I + G + X = C + S + T + M$$

$$I + G + X = S + T + M$$

$$\downarrow \quad \downarrow$$

Injection = Leakage

Effects on Income When Imports are Greater than Exports



$C = a + b.y_d$

I = 100

G = 100

X = 100

M = 50

Questions

1. $C = 40 + 0.8Y_d$, T = 0.1Y, I = 60 G = 40, X = 58 and M = 0.05 Y.

Find out equilibrium level of income, Net Export, Net export if export were to increase by 6.25.

Y = ?

(*a*) 200 (*b*) 198

(*c*) 599 (*d*) 600

2. $C = 40 + 0.8Y_d$, T = 0.1Y, I = 60 G = 40, X = 58 and M = 0.05 Y.

Find out equilibrium level of income, Net Export, Net export if export were to increase by 6.25.

Net Exports = ?

(*a*) 30 (*b*) 58

(*c*) 28 (*d*) 62.5

Answers

1. (*d*) **2.** (*c*)

Illustration

Q. C = 40 + 0.8Yd, T = 0.1Y, I = 60 G = 40, X = 58 and M = 0.05 Y.

Net export if export were to increase by 6.25.

(*a*) 33.3 (*b*) 64.25

(*c*) 30.98 (*d*) None

Ans. C = 40 + 0.8Y_{d}

C = 40 + 0.8(Y - 0.1Y)

Y=C+I+G+(XM) = 40 + 0.8(Y - 0.1Y) + 60 + 40 + (58 - 0.05Y)

Y = 40 + 0.8(0.9Y) + 60 + 40 + 58 - 0.05Y

Y - 0.72Y + 0.05Y = 198

Y(1 - 0.72 + 0.05) = 198

Y(0.33) = 198

Y = 198/0.33 = 600 Crores

Net Export = X-M = 58-0.05Y

58 - 0.05(600) = 58 - 30 = 28

If exports increase by 6.25, then exports = 64.25

Then, l= underline 40 +0.8(Y- underline 0.1Y)+ 60 + 40 + underline (64.25 -0.05Y)

Y(1 - 0.72 + 0.05) = 204.5

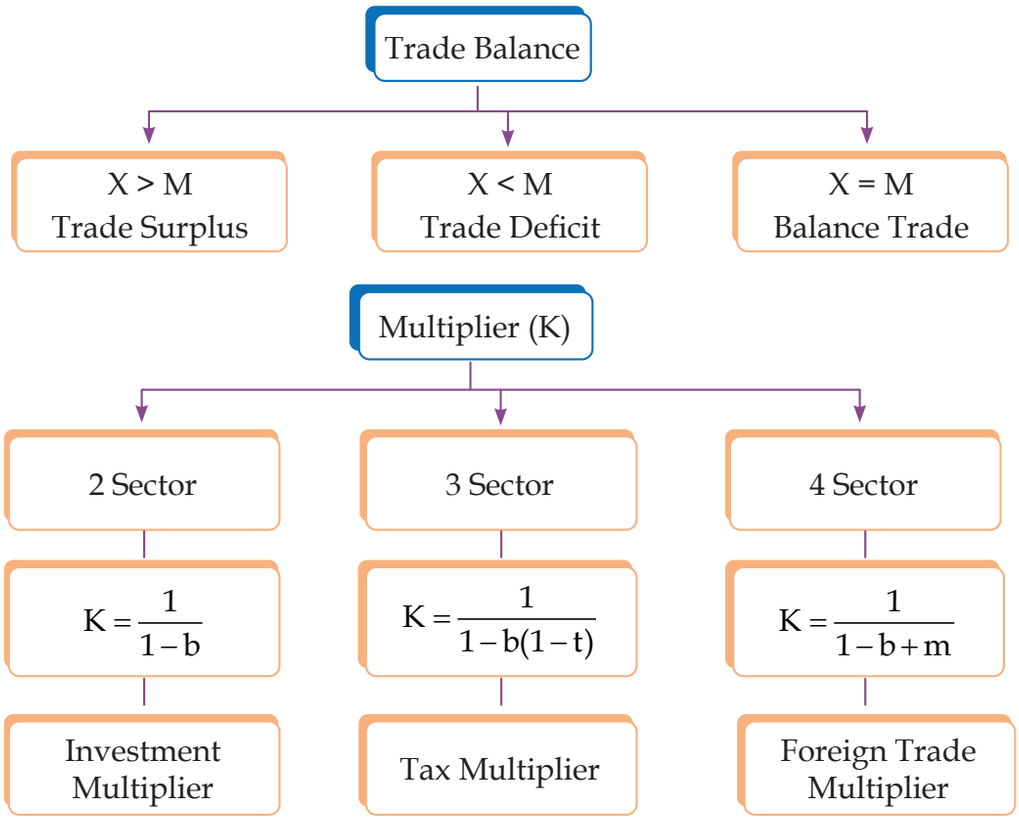
Y(0.33) = 204.5

Y= 204.5p/0.33 = 619.697

Then import = .05 × 619.697 = 30.98

Net Export = 64.25-30.98 = 33.27 Crores

Thus, there is surplus in balance of trade as Net Exports are positive



Questions

1. In four sector model, which of the following formula is used to calculate Foreign Trade Multiplier, if b and m refer to marginal propensity to consume and Marginal Propensity to import?

(a) $\frac{1}{1-b-m}$ (b) $\frac{1}{1+b-m}$

(c) $\frac{1}{1-b+m}$ (d) $\frac{1}{1+b+m}$

2. $C = 60 + 0.9Y_d$

$I = 10$

$M = 10 + 0.05Y$

What is Foreign Trade Multiplier?

(a) 0.98 (b) 3.97

(c) 6.66 (d) None of these

Answers

1. (c) **2.** (c)

Illustration

Q. An economy is characterized by the following equation

Consumption $C = 60 + 0.9Y_d$

Investment $I = 10$

Government expenditure $G = 10$

Tax $T = 0$

Exports $X = 20$

Imports $M = 10 + 0.05Y$

What is the equilibrium Income?

Calculate trade balance and foreign trade multiplier.

Ans. $Y = C + I + G + (X - M)$

$= 60 + 0.9 (Y - 0) + 10 + 10 + (20 - 10 - 0.05Y)$

$= 60 + 0.9Y + 30 - 0.05Y$

$Y = 600$

Trade Balance $= X - M = 20 - 10 - 0.05(600) = -20$

Thus, trade balance in deficit.

Foreign trade multiplier $= \frac{1}{1-b+m} = \frac{1}{1-0.9+0.05} = 6.66$

2 Sector Economy

$$K = \frac{\Delta Y}{\Delta I} = \frac{1}{MPS} = \frac{1}{1-MPC} = \frac{1}{1-b}$$

3 Sector Economy

$$K = \frac{1}{1-b(1+t)}$$

4 Sector Economy

Foreign Trade Multiplier $= \frac{\Delta Y}{\Delta X} = \frac{1}{1-b+M}$

Questions

1. If a country has the following economic data: GDP_{MP} = ₹2,000 billion, indirect taxes = ₹250 billion and subsidies = ₹100 billion, what is its GDP at Factor Cost? **(Sept. 2025)**

(*a*) ₹1,850 billion (*b*) ₹2,100 billion

(*c*) ₹2,150 billion (*d*) ₹2,000 billion

2. If the Average Propensity to Save (APS) of a household is 0.4, and their total income is ₹25,000, what is the total saving? **(Sept. 2025)**

(*a*) ₹15,000 (*b*) ₹10,000

(*c*) ₹6,250 (*d*) ₹12,500

3. Which of the following is an anti-inflationary measure that puts downward pressure on aggregate demand, causing the economy to slow down? **(Sept. 2025)**

(*a*) Reduction in government spending (*b*) Increase in government spending

(*c*) Decrease in interest rates (*d*) Decrease in taxes

4. The slope of the consumption function represents_____. **(Sept. 2025)**

(*a*) Average Propensity to Save (APS) (*b*) Marginal Propensity to Consume (MPC)

(*c*) Marginal Propensity to Save (MPS) (*d*) Average Propensity to Consume (APC)

5. Who are the economists credited with pioneering National Income Accounting? **(Sept. 2025)**

(*a*) John Maynard Keynes and Milton Friedman

(*b*) Simon Kuznets and Richard Stone

(*c*) Adam Smith and David Ricardo

(*d*) Paul Samuelson and Joseph Schumpeter

6. Consider the following data and answer the Questions. (Sept.2025)

Financial Year (FY)	2020-21	2021-22	2022-23	2023-24
GDP Deflator	100	154.25	168.40	148.25

In which FY the price level has fallen?

(*a*) FY 2020-21 (*b*) FY 2023-24

(*c*) FY 2022-23 (*d*) FY 2021-22

7. Consider the following data and answer the Questions. **(Sept. 2025)**

Financial Year (FY)	2020-21	2021-22	2022-23	2023-24
GDP Deflator	100	154.25	168.40	148.25

What will be the inflation rate in FY 2022-23 as compared to FY 2021-22 ?

(*a*) 9.54% (*b*) 8.76%

(*c*) 9.17% (*d*) 7.44%

8. Consider the following data and answer the Questions. **(Sept. 2025)**

Financial Year (FY)	2020-21	2021-22	2022-23	2023-24
GDP Deflator	100	154.25	168.40	148.25

In which FY the nominal GDP and real GDP are the same ?

(*a*) FY 2021-22 (*b*) FY 2022-23

(*c*) FY 2020-21 (*d*) FY 2023-24

9. Calculate the consumption of fixed capital (depreciation) from the following data **(Sept. 2025)**

Particulars	Amount (₹) in crores
GDP_{MP}	8,000
NNP_{MP}	5,600
Indirect Tax	400
Subsidy	300
Net factor Income from Abroad	200

(*a*) ₹1,700 crores (*b*) ₹5,200 crores

(*c*) ₹7,600 crores (*d*) ₹2,600 crores

10. There are three different interlinked phases in a circular flow of income, namely: **(Sept. 2025)**

(*a*) Production, consumption and disposition

(*b*) Production, consumption and investment

(*c*) Production, disposition and distribution

(*d*) Production, expenditure and disposition

11. If the consumption function C = 10 + 0.5Y and Investment is ₹200, then what will be the equilibrium level of Income? **(Sept. 2025)**

(*a*) ₹510 (*b*) ₹325

(*c*) ₹420 (*d*) ₹350

12. The maximum value of investment multiplier will be the infinity when the value of: **(Sept. 2025)**

(*a*) MPC is 1 (*b*) MPC is –1

(*c*) APC is 1 (*d*) MPS is –1

13. Gamma Ltd., a South Korean company, earns profits from its manufacturing operations in India. How these profits will be reflected in the economic measures of both countries? **(Sept. 2025)**

(*a*) They will be included in India's GDP and South Korea's GDP

(*b*) They will be included in India's GDP but not in South Korea's GNP

(*c*) They will be included in India's GDP and South Korea's GNP

(*d*) They will be included only in India's GNP

14. If national income increases from ₹500 crores to ₹2,500 crores due to an increase in investment of ₹200 crores, what will be the value of the Marginal Propensity to Consume (MPC)? **(Sept .2025)**

(*a*) 0.90 (*b*) 0.85

(*c*) 0.75 (*d*) 0.95

15. Calculate the net factor income from abroad from the following data: **(Sept. 2025)**

Particulars	Amount (₹) in crores
NDP_{MP}	10,000
NNP_{MP}	12,000
Net Indirect Tax	400
Depreciation	200

(*a*) ₹2,400 crores (*b*) ₹2,000 crores

(*c*) ₹3,600 crores (*d*) ₹1,800 crores

16. If the GDP deflator is greater than 100, it indicates that: **(Sept. 2025)**

(*a*) Real GDP is greater than nominal GDP

(*b*) Nominal GDP is greater than real GDP

(*c*) Price levels are lower as compared to the base year

(*d*) Real GDP is equal to nominal GDP

Answers

1. (*a*) **2.** (*b*) **3.** (*a*) **4.** (*b*) **5.** (*b*) **6.** (*b*) **7.** (*c*) **8.** (*c*) **9.** (*d*) **10.** (*c*)
11. (*c*) **12.** (*a*) **13.** (*c*) **14.** (*a*) **15.** (*b*) **16.** (*b*)

07

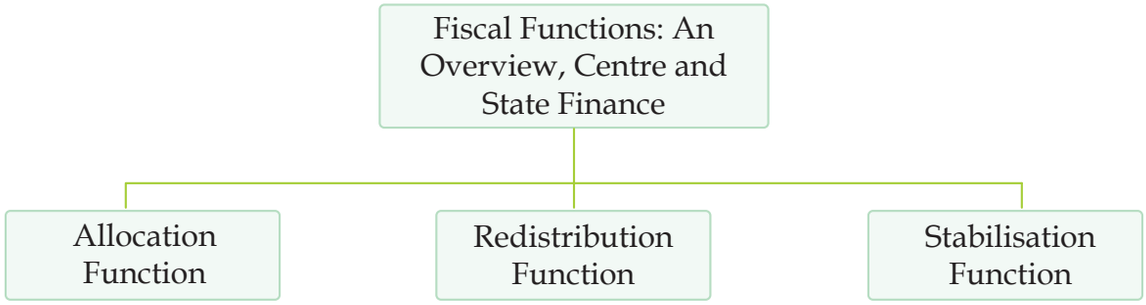
PUBLIC FINANCE

CONTENT OF THE CHAPTER

Unit-1: Fiscal Functions: An Overview, Centre and State Finance
Unit-2: Market Failure/Government intervention to correct Market Failure
Unit-3: The Process of Budget Making: Sources of Revenue, Expenditure Management and Management of Public Debt
Unit-4: Fiscal Policy

UNIT-1: FISCAL FUNCTIONS: AN OVERVIEW, CENTRE AND STATE FINANCE

INTRODUCTION



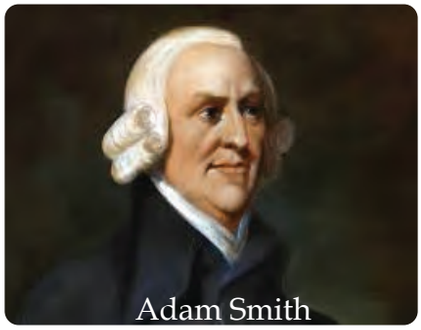
1. The governments of all nations have important economic functions, even where markets constitute the basic resource allocation mechanism.
2. The size and scope of government in market economies have grown much larger over the past few decades.
3. The primary goal of the state is to promote the general welfare of the society.
4. What governments do, or do not do, will obviously have an important impact on the economic performance of an economy and the quality of life of its citizens.
5. Governments at various levels involve in several operations for running the state.
6. The government raises money from various sources, incurs expenditures, consumes goods and services, borrows money, employs people, and provides key institutions such as property rights.
7. The government also establishes and administers rules and regulations and puts in place policies concerning all aspects of life of people.

8. We have experienced in our day-to-day life that though governments at various levels impose many rules and regulations in the economy, some matters still go unregulated.
9. Similarly, most of the goods and services that we consume are produced by private producers, but there is broad agreement that certain goods and services should be provided exclusively by the government.
10. For a variety of reasons, we believe that governments should accomplish some activities and should not do others.

The primary goal of the state is to promote the general welfare of the society.

There are three main macroeconomic goals for any nation.

1. The first is economic growth.
2. The second goal is high levels of employment, which will ensure higher income and higher output. When unemployment occurs, it harms not only the unemployed but society as a whole because there is a loss of output that could have been produced.
3. The third macroeconomic goal is stable price levels. Inflation reduces the real incomes and purchasing power of some people, especially lower-income families.


Adam Smith

Adam Smith is often described as a bold advocate of free markets and minimal governmental activity. Smith believed that government's roles in society should be limited, but well defined.

However, Smith saw an important resource allocation role for the government when he underlined the role of government in:

(*a*) national defence, national security.

(*b*) establishing a system of justice to provide internal law and order and to protect property.

(*c*) establishment and maintenance of highly beneficial public institutions like ISRO, Railway, etc. and public works such as roads, bridges, canals, harbours, and postal system that profit-seeking individuals may not be able to efficiently build and operate.


Richard Musgrave

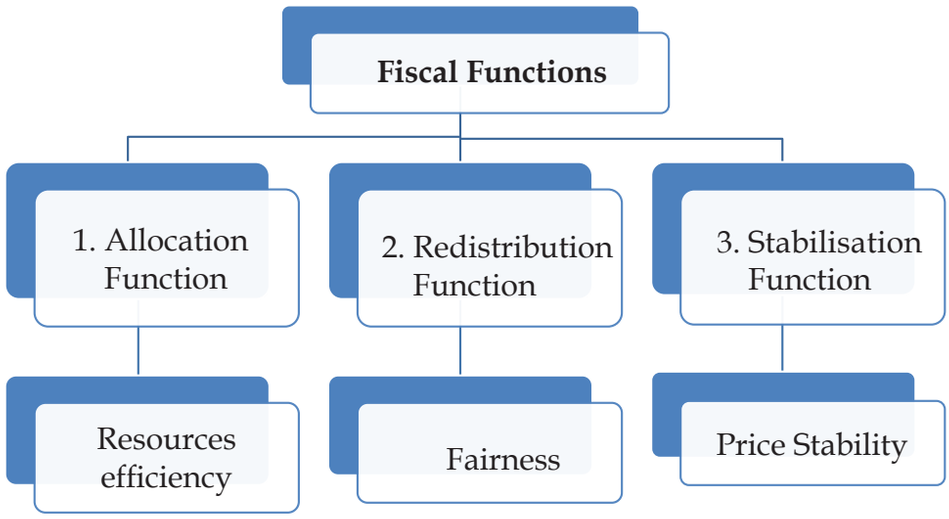
Richard Musgrave, in his classic treatise 'The Theory of Public Finance' (1959), introduced the three-branch taxonomy of the role of government in a market economy.

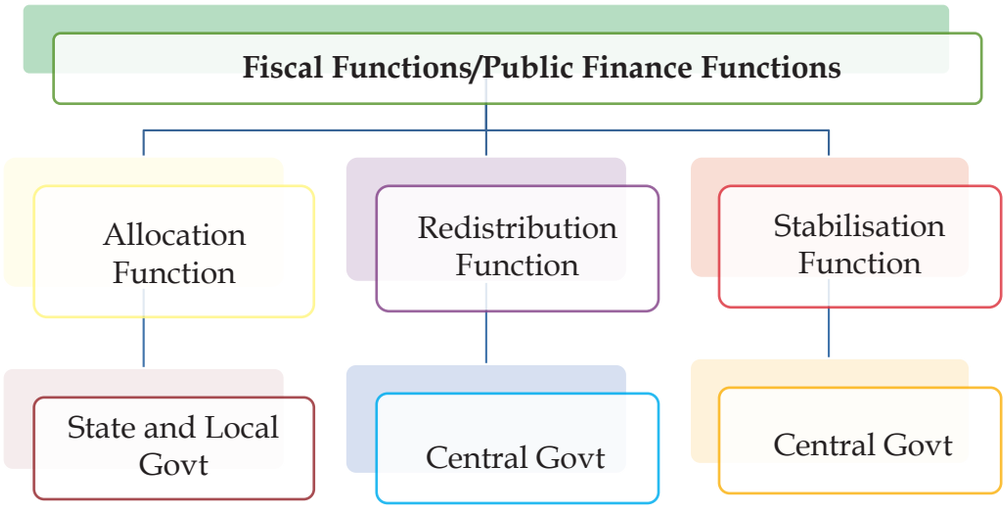
Musgrave believed that the functions of the government are to be separated into three, namely,

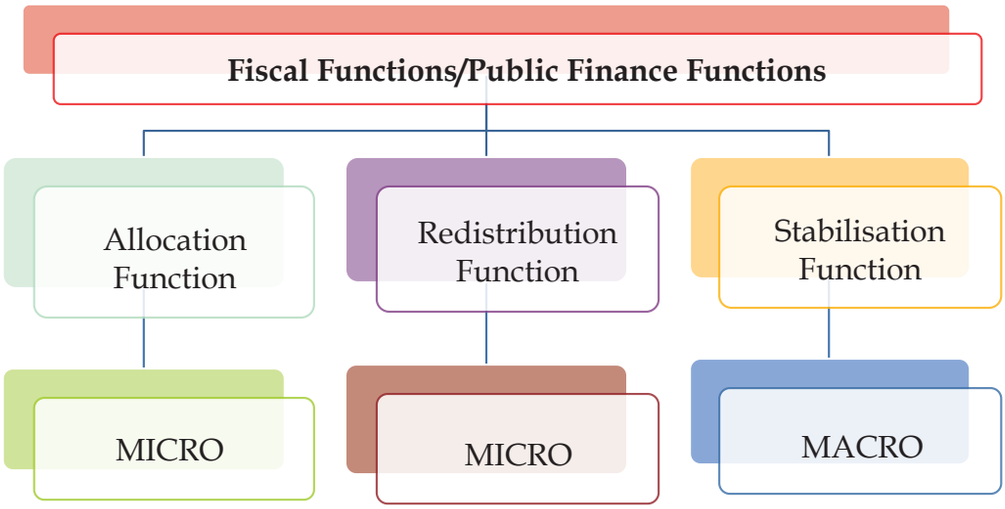
(*a*) resource allocation (to ensure efficiency),

(*b*) income redistribution (to guarantee fairness), and

(*c*) macroeconomic stabilisation (to ensure price stability).


Fiscal Functions
1. Allocation Function
2. Redistribution Function
3. Stabilisation Function
Resources efficiency
Fairness
Price Stability


Fiscal Functions/Public Finance Functions
Allocation Function
Redistribution Function
Stabilisation Function
State and Local Govt
Central Govt
Central Govt


Fiscal Functions/Public Finance Functions
Allocation Function
Redistribution Function
Stabilisation Function
MICRO
MICRO
MACRO

Questions

1. Who is responsible for the economic stabilisation and the income redistribution in an economy? **[June 2024]**

(*a*) State Government (*b*) Central Government

(*c*) Central and State (*d*) Central, State, local bodies

2. Which of the following is primarily a macroeconomic function?

(*a*) Allocation function (*b*) Income Redistribution

(*c*) Stabilisation Function (*d*) All of the above

Answers

1. (*b*) **2.** (*d*)

THE ALLOCATION FUNCTION

Resource allocation refers to the way in which the available resources or factors of production are allocated among the various uses to which they might be put.

It determines how much of the various kinds of goods and services will actually be produced in an economy because resources are scarce/Limited.

Efficient allocation of available resources in an economy is assumed to take place only when the markets are perfectly competitive, and economic agents make rational choices and decisions. In reality, markets are never perfectly competitive.

Market Failures Hinder the Efficient Allocation of Resources

Market Failures Occur Mainly due to the following Reasons

1. Imperfect competition and the presence of monopoly power in different degrees lead to under-production and higher prices than would exist under conditions of perfect competition. Markets may fail to control the abuses of monopoly power.

2. Markets typically fail to provide collective public goods such as defence, roads, consumed in common by all people.

3. Incomplete markets; markets may fail to produce the right quantity of merit goods, such as education and healthcare.

4. Common property resources (e.g. environment) are overused and exhausted in the individual pursuit of self-interest.

5. Externalities which arise when the production and consumption of a good or service affect third parties (e.g. pollution).

6. Factor immobility, which causes unemployment and inefficiency.

7. Imperfect information because it may not be in the interests of one party to provide full information to the other party, and

8. Inequalities in the distribution of income and wealth.

- In the absence of appropriate government intervention, market failures may occur, and the resources are likely to be misallocated, with too much production of certain goods or too little production of certain other goods.
- For example, the society may produce too much of demerit goods and too little of merit goods. The allocation responsibility of the governments involves suitable corrective action

when private markets fail to provide the right and desirable combination of goods and services. Briefly put, market failures provide the rationale for the government's allocative function.

The resource allocation role of the government's policy focuses on the potential for the government to improve economic performance through its expenditure and tax policies. The allocative function in budgeting determines:

(a) Who and what will be taxed
(b) How much and on what the government revenue will be spent
(c) The process by which the total resources of the economy are divided among various uses
(d) The optimum mix of various social goods (both public goods and merit goods).
(e) The level of involvement of the public sector in the national economy
(f) The reallocation of society's resources from private use to public use.

A variety of allocation instruments are available by which governments can influence resource allocation in the economy.

For Example:

1. The government may directly produce an economic good (for example, electricity and public transportation services)
2. The government may use the price mechanism (i.e., altering the market prices determined by demand and supply through taxes and subsidies) to influence private allocation by policies that change the behaviour of consumers and producers. In other words, the government may direct resource allocation through incentives and disincentives (for example, tax concessions and subsidies may be given for the production of goods that promote social welfare, and higher taxes may be imposed on goods such as cigarettes and alcohol so that their prices are higher)
3. The government may influence allocation through legislation and force. For example, a ban on single-use plastic goods prevents resources from moving into their production.
4. The competition policies, merger policies, etc., affect the structure of industry and commerce
5. Governments' regulatory activities, such as licensing, controls, minimum wages, and directives on the location of industry, influence resource allocation.
6. The government sets legal and administrative frameworks, and
7. Governments may adopt any combination of possible remedies/solutions.

Questions

1. The Government of Emeline Land decides to provide the most modern road infrastructure throughout the nation. This can be classified as

   (*a*) Distribution function (*b*) Allocation function
   (*c*) Stabilisation function (*d*) None of the above

2. Government's direct production of an economic good, e.g. electricity and public transportation services are example of: **(Jan 2025)**

   (*a*) Distribution function (*b*) Allocation functio
   (*c*) Stabilisation function (*d*) Protection function

3. Read the following statements:

1. The market-generated allocation of resources is usually imperfect and leads to inefficient allocation of resources in the economy.
2. Market failures can at all times be corrected through government intervention.
3. Public goods will not be produced in sufficient quantities in a market economy.

Of the three statements above:

(*a*) 1, 2 and 3 are correct
(*b*) 1 and 3 are correct
(*c*) 2 and 3 are correct
(*d*) 3 alone is correct

Answers

1. (*b*) **2.** (*a*) **3.** (*b*)

REDISTRIBUTION FUNCTION

- If left to the market, the distribution of income and wealth among individuals in society is likely to be skewed, and therefore government has to intervene to ensure a more desirable and just distribution
- This function is related to the question of for whom an economy should produce goods and services.

Redistribution Function in Govt. Budgeting

- Govt. can redistribute income and wealth either through the expenditure side or through the revenue side of the budget.
- Expenditure side of the budget:
- Governments may provide free or subsidised education, healthcare, housing, food, etc. to deserving people.
- Revenue side of the budget:
  - Redistribution is done through progressive taxation

Aim of the Redistribution Function

1. Achieve an equitable distribution of societal output among households.
2. Advancing the well-being of those members of society who suffer from deprivations lack of Something.
3. Providing equality in income, wealth and opportunities.
4. Providing security (in terms of fulfilment of basic needs) for people who have hardships.
5. Ensuring that everyone enjoys a minimal standard of living.

Examples of the Redistribution Function OR Market Intervention for Socioeconomic Reasons

1. Taxation policies like progressive taxation on the rich and the provision of subsidies to poor households.
2. Proceeds/receipts from progressive taxes used for financing public services that benefit low-income households.
3. Employment reservations and preferences to protect certain segments of the population.
4. Unemployment benefits and transfer payments to provide support to deprived sectors.

5. Families below the poverty line are provided with monetary aid and aid in kind, or assets.
6. Regulation of the manufacture and sale of certain products to ensure health and well-being.
7. Special schemes for backward regions and for vulnerable sections.

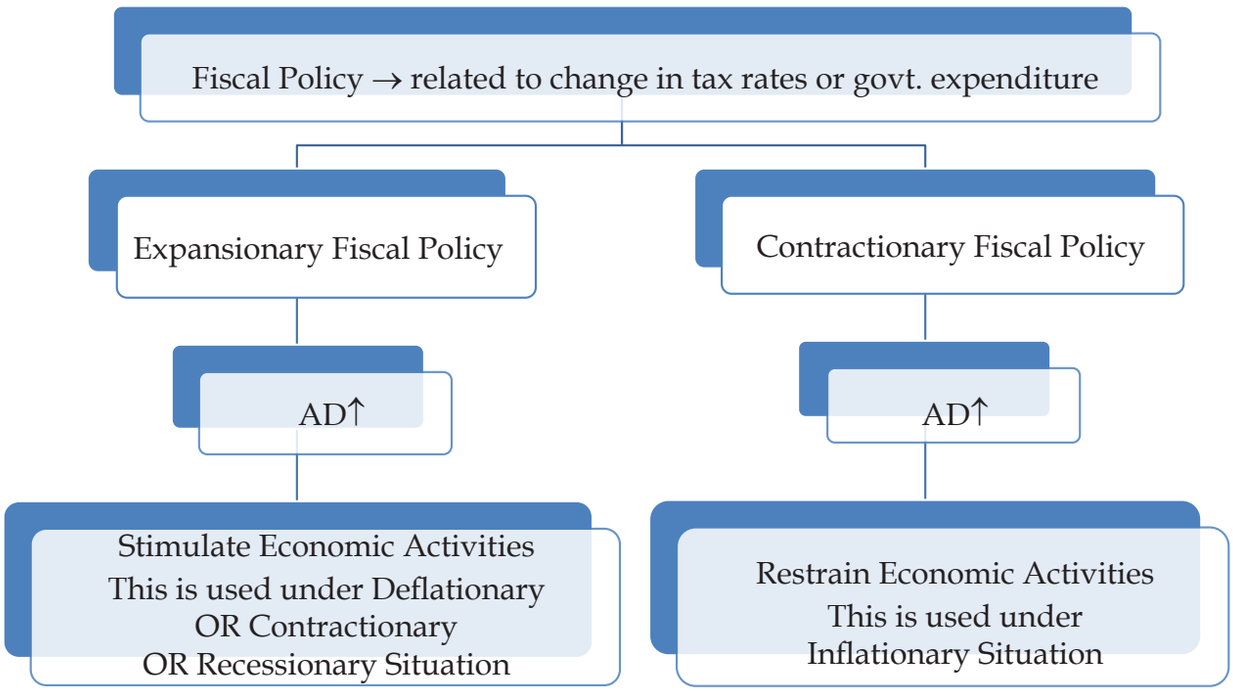
Questions

1. Redistribution policies are likely to have efficiency costs leading:
   (*a*) They will reduce the efficiency of governments
   (*b*) They may create disincentives to work and save
   (*c*) Governments have to forego taxes
   (*d*) They are likely to make the poor people dependent on the rich
2. Which of the following policies of the government fulfils the redistribution function
   (*a*) Parking the army on the northern borders of the country
   (*b*) Supply of food grains at subsidised prices to the poor people
   (*c*) Controlling the supply of money through monetary policy
   (*d*) All of the above
3. A progressive direct tax system ensures: **(Jan 2025)**
   (*a*) Those who have a greater ability to pay contribute more, and the tax burden is distributed fairly among the population.
   (*b*) Economic growth with stability because it distributes the burden of taxes unequally
   (*c*) Uniform taxes for all
   (*d*) Luxuries are taxed heavily

Answers

1. (*b*) **2.** (*b*) **3.** (*b*)

Fiscal Policy/Budgetary Policy



Question

1. Fiscal Policies are associated with _____. **[Dec. 2023]**

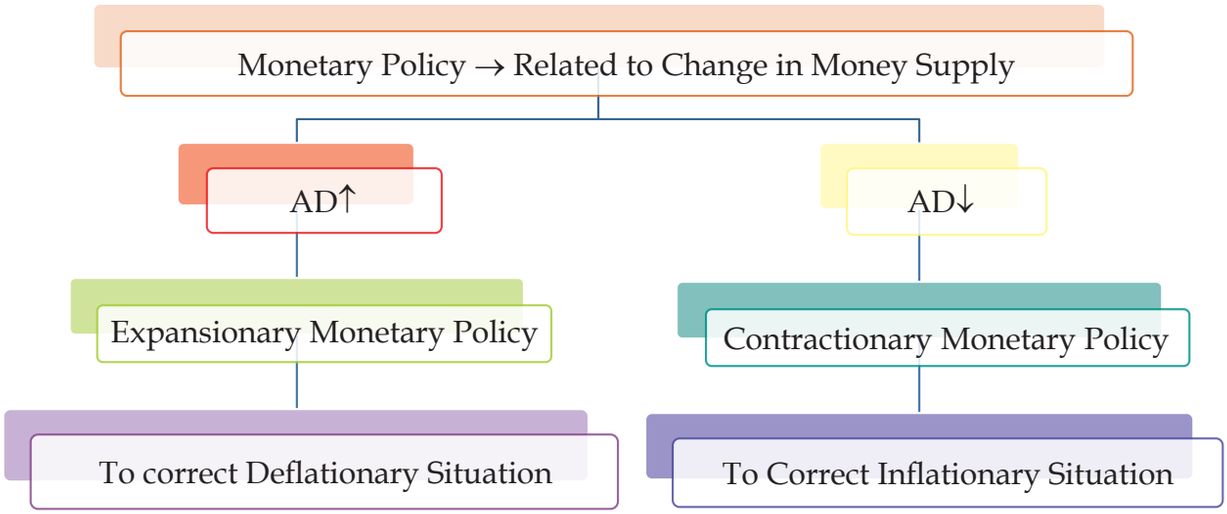
(*a*) Government Expenditure (*b*) Reserve Equipment

(*c*) Inflation (*d*) Supply of Money

Answer

1. (*a*)

Monetary Policy



STABILISATION FUNCTION

Macroeconomic stability is said to exist when

1. An economy's output matches its production capacity
2. The economy's total spending matches its total output
3. The economy's labour resources are fully employed, and
4. Inflation is low and stable, i.e., price stability

The stabilisation function is concerned with the performance of the aggregate economy in terms of

1. Labour employment and capital utilisation
2. Overall output and income
3. General price levels
4. Balance of international payments
5. The rate of economic growth.

Rationale/Reason for Stabilisation Function

A market economy does not automatically generate full employment and price stability, and therefore, governments should pursue deliberate stabilisation policies.

- Without the involvement of the government. there may exist stagflation (inflation + unemployment) or recession.
- Stabilisation issue becomes more complex due to the 'contagion effect' whereby increased international interdependence and financial integration cause forces of instability to be easily transmitted from one country to another.

Government's stabilisation intervention may be Through

1. Monetary policy - it works through changing the money supply and interest rate, and then affects consumption and saving in an economy.
2. Fiscal Policy (Covid-19 pandemic is an example of govt. fiscal policy)
   - Expenditure decisions - The Government can choose to spend in such a way that it stimulates other economic activities.
   - Taxation decisions.

Expansionary Fiscal Policy is Adopted to Alleviate/Remove Recession/Deflation

- During a recession, the government increases its expenditure or cuts down taxes in order to ensure income protection.
- Contractionary fiscal policy is resorted to for controlling high inflation. During high inflation, the government decreases its expenditure or increases taxes.
  - **Deficit budgets** are expected to stimulate economic activity.
  - **Surplus budgets** tend to slow down economic activity.

Questions

1. Macroeconomic stabilisation may be achieved through:
   (*a*) Free market economy (*b*) Fiscal Policy
   (*c*) Monetary Policy (*d*) (***b***) and (***c***) above
2. In a federal set-up, the stabilisation function can be effectively performed by:
   (*a*) Respective state governments (*b*) Ministry of Taxes
   (*c*) The government at the centre (*d*) None of the above

Answers

1. (*d*) **2.** (*c*)

FISCAL FEDERALISM

- According to Richard Musgrave, Fiscal federalism refers to the division of governmental functions and financial relations among the different levels/layers of government.
- India is a federation of 28 states and 8 union territories. Fundamentally, federalism is an institutional arrangement to accommodate two sets of government - one at the national level and the other at the regional level. Each government is autonomous in its own sphere.
- An independent judiciary is established to resolve disputes between the central government and the states on issues related to the division of power.

Question

1. Fiscal Federalism refers to _____.
   (*a*) Organising and implementing development plans
   (*b*) Sharing of political power between centres and states
   (*c*) The management of fiscal policy by a nation
   (*d*) Division of economic functions and resources among different layers of the government

Answer

1. (*d*)

Article 246 of the Constitution demarcates/divides the powers of the union and the state by classifying their powers into 3 lists,

1. Union list (on which the union parliament alone can legislate)
2. State list (on which the state legislative assemblies alone can legislate) and
3. The concurrent list on which both the parliament and the legislative assemblies can legislate.

The Union Government Can Levy Taxes Such As

1. Tax on income, other than agricultural income
2. Customs and export duties
3. Excise duties on certain goods
4. Corporation tax
5. Tax on the capital value of assets excluding agricultural land
6. Terminal taxes
7. Security transaction tax
8. Central GST
9. Union Excise Duty

The State Governments Can Levy Taxes On

1. Agricultural income,
2. Lands and buildings,
3. Mineral rights,
4. Electricity,
5. Vehicles,
6. Tolls,
7. Professions,
8. Land revenue,
9. Stamp duty and
10. Excise duties on certain items.

Question

1. Which one of the following taxes is levied by the state government only?

(*a*) Corporation tax (*b*) Wealth tax

(*c*) Income tax (*d*) None of the above

Answer

1. (*d*)

- States levy and collect state GST (SGST), and the union levies and collects the central GST (CGST). An integrated GST (IGST) is applied on the inter-state movement of goods and services and on imports and exports.
- For providing compensation to states, a cess is levied on luxury goods and demerit goods and the proceeds are credited to the compensation fund. GST compensation was extended beyond five years to enable states to tide over the pandemic induced economic slowdown.
- During the five-year transition period, the top five GST compensation-receiving states were Maharashtra, Karnataka, Gujarat, Tamil Nadu and Punjab.
- The total amount of compensation released to the states and union territories during the year 2022-23 is ₹1,15,662 crore.
- With many taxes subsumed under GST, it accounts for 35 per cent of the gross tax revenue of the union and around 44 per cent of the own tax revenue of the states.

Question

1. GST compensation is given to:

(*a*) to the industries which have made losses due to the introduction of GST.

(*b*) to compensate for the lower rates of GST on essential items.

(*c*) to the states to compensate for the loss of revenue due to the introduction of GST.

(*d*) to compensate for the loss of input tax credit in manufacturing.

Answer

1. (*c*)

- As per the Supreme Court verdict in May 2022, the Union and state legislatures have "equal, simultaneous and unique powers" to make laws on Goods and Services Tax (GST) and the recommendations of the GST Council are not binding on them.
- The GST system replaced the then prevailing production-based taxation system with a consumption based one.

Question

1. As per the Supreme Court verdict in May 2022:

(*a*) The union has greater powers than the states for enacting GST laws.

(*b*) The union and state legislatures have "equal, simultaneous powers" to make laws on Goods and Services Tax.

(*c*) The union legislature's enactments will prevail in case of a conflict between those of the union and the states.

(*d*) The state legislatures can make rules only with the permission of the central government.

Answer

1. (*b*)

Articles 268 to 281 of the Constitution contain specific provisions in respect of the distribution of finances among states.

Distribution of revenue between the union and states is based on the constitutional provisions as follows:

List–I	List–II
Article 268	Duties levied by the union but collected and appropriated by the states.
Antide 269	Taxes levied and collected by the union but assigned to the states.
Antide 270	Taxes levied and collected by the union and distributed between the union and states as prescribed in clause 2
Article 271	Surcharge on certain duties and taxes for the purposes of the union
Article 275	Statutory Grants-in-aid from the union to certain states.
Article 282	Grants for any public purpose.
Article 293	Loans for any public purpose.

Borrowing by the Government of India and borrowing by the states are defined under articles 292 and 293 of the Constitution of India.

Article 280 provides for an institutional mechanism, namely the Finance Commission, to facilitate such transfers.

Questions

1. Which Article provides for an institutional mechanism, named the Finance Commission, for recommending the sharing of taxes?

(*a*) Article 277 (*b*) Article 278

(*c*) Article 279 (*d*) Article 280

2. Which of the following articles of the Constitution demarcates the powers of the Union and the states by classifying their powers into three lists?

(*a*) Article 244 (*b*) Article 245

(*c*) Article 246 (*d*) Article 247

Answers

1. (*d*) **2.** (*c*)

The Finance Commission Performs the Following Functions

1. The distribution of shares between the union and the states of the net proceeds of taxes.

2. Determination of principles and quantum of grants-in-aid to states which need such assistance.

3. To make recommendations to the President on measures needed to augment the consolidated fund of a state to supplement the resources of the panchayats and municipalities in the state.
4. Any other matter referred to the Commission by the President in the interests of sound finance.

The Finance Commission Considers Issues Related To

1. vertical equity (deciding about the share of all states in the revenue collected by the centre) and
2. horizontal equity (allocation among states of their share of central revenue).
   - The criteria for distribution of central taxes among states for 2021-26 are income distance, area, population (2011), demographic performance (to reward efforts made by states in controlling their population), forest and ecology and tax and fiscal efforts.
   - The Fifteenth Finance Commission was constituted on 27 November 2017 against the abolition of the Planning Commission and the introduction of the goods and services tax (GST).
   - The commission recommended the share of states in the central taxes (vertical devolution) for the 2021-26 period to be 41%, which is the same as that for 2020-21.
   - This is less than the (42%) share recommended by the 14th Finance Commission for 2015-20. The adjustment of 1% is to provide for the newly formed union territories of Jammu and Kashmir and Ladakh from the resources of the centre.

Question

1. The percentage of share of states in central taxes for the period 2021-26 recommended by the Fifteenth Finance Commission is

   (*a*) 38 percent

   (*b*) 41 percent

   (*c*) 42 percent

   (*d*) The commission has not submitted its report

Answer

1. (*b*)

Expenditure Decentralisation

- The central government is entrusted with the responsibilities of providing nationally important areas like defence, foreign affairs, foreign trade and exchange management, money and banking, cross-state transport and communication.
- The state governments are entrusted with the responsibility of facilitating agriculture and industry, providing social sector services such as health and education, police protection, state roads and infrastructure.
- The local self-governments, such as municipalities and panchayats, are entrusted with the responsibility of providing public utility services such as water supply and sanitation, local roads, electricity, etc. For items that fall in the concurrent list, both the central and state governments are responsible for providing services.

Questions

1. Which of the following is true in respect of the role of Finance Commissions in India?

I. The distribution between the union and the states of the net proceeds of taxes

II. Allocation between the states of the respective shares of such proceeds.

III. Make Recommendations on integrated GST on inter-state movement of goods and services.

IV. To recommend expenditure decentralisation among different states:

(*a*) I and II are correct (*b*) II and III are correct

(*c*) I, II and III are correct (*d*) All the above are correct

2. Which of the following is concerned with the division of economic responsibilities between the central and state governments of India?

(*a*) NITI Aayog (*b*) Central bank

(*c*) Finance Commission (*d*) Parliament

3. Which of the following is not a criterion for determining the distribution of central taxes among states for the 2021-26 period?

(*a*) Demographic performance (*b*) Forest and ecology

(*c*) Infrastructure performance (*d*) Tax and fiscal efforts

4. Which constitutional body maintains fiscal federalism in India? **[Jan. 2025]**

(*a*) Central government (*b*) Parliament

(*c*) Reserve Bank of India (*d*) Finance Commission

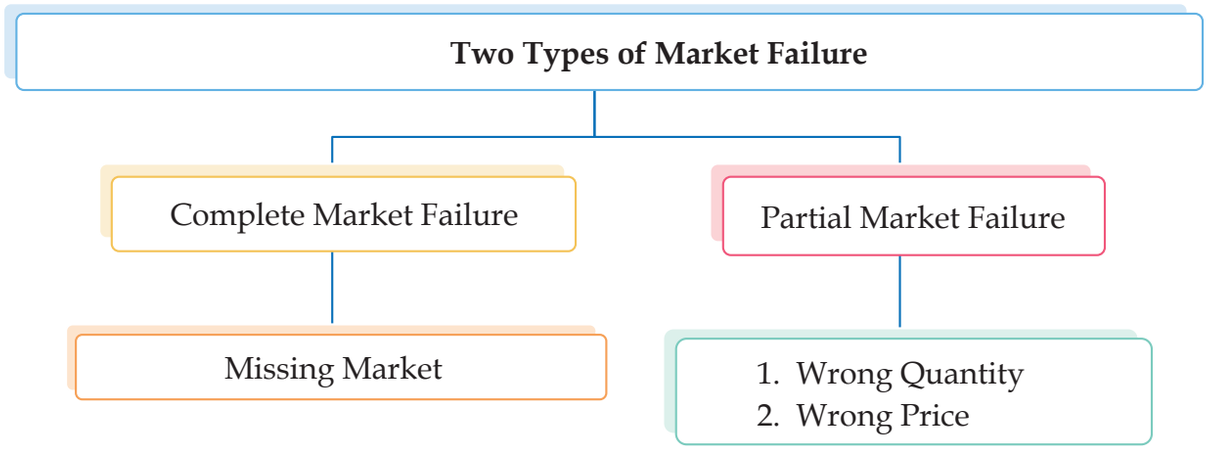
Answers

1. (*a*) **2.** (*c*) **3.** (*c*) **4.** (*d*)

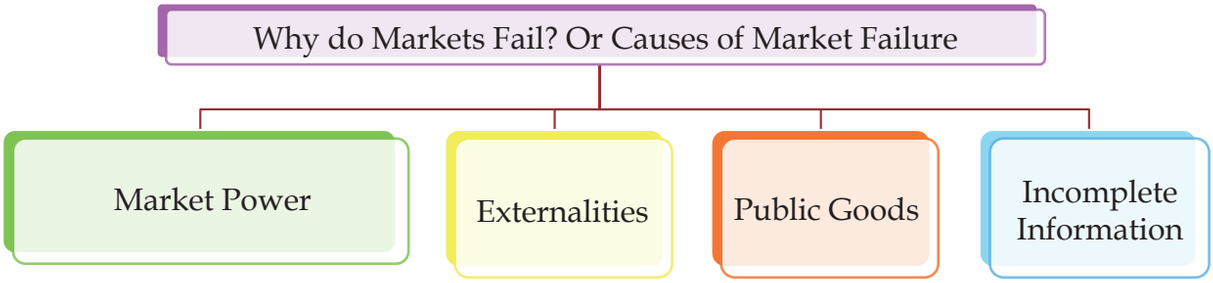
UNIT-2: MARKET FAILURE/GOVERNMENT INTERVENTION TO CORRECT MARKET

MARKET FAILURE

- Market Failure is the inefficient allocation of resources.
- Market failure is a situation in which the free market leads to misallocation of society's scarce resources in the sense that there is either- Overproduction or underproduction of particular goods and services leading to a less than optimal outcome.



WHY DO MARKETS FAIL?



Market Power

Market power or monopoly power is the ability of a firm to profitably raise the market price of a good over its marginal cost, thereby earning positive economic profits.

Market power can cause markets to be inefficient because it

- keeps prices higher and
- output lower

than the outcome of the equilibrium of supply and demand. Leads to under-production and thus market failure.

Questions

1. 'Market failure' is a situation which occurs when:

(*a*) Private goods are not sufficiently provided by the market

(*b*) Public goods are not sufficiently provided by the public sector

(*c*) The market fails to form or they allocate resources efficiently

(*d*) (*b*) and (*c*) above

2. Which of the following is an example of market failure?

(*a*) Prices of goods tend to rise because of shortages

(*b*) Merit goods are not sufficiently produced and supplied

(*c*) Prices fall, leading to a fall in profits and the closure of firms

(*d*) None of the above

3. Which of the following is an outcome of market power?

(*a*) Makes price equal to marginal cost and produces a positive external benefit for others

(*b*) Can cause markets to be efficient due to a reduction in costs

(*c*) Makes the firm price maker and restricts output so as to make allocation inefficient

(*d*) (*b*) and (*c*) above

Answers

1. (*c*) **2.** (*b*) **3.** (*c*)

Externalities

Externalities refer to the Good or bad impact on others.

Externalities are also known as:

1. 'Spillover effects'

2. 'Neighbourhood effects'

3. 'Third-party effects'

4. 'Side-effects'

Types of Externalities

1. Negative Production Externalities received in consumption

2. Negative Production Externalities received in production

3. Positive Production Externalities received in consumption

4. Positive Production Externalities received in production

5. Positive Consumption Externalities received in consumption

6. Positive Consumption Externalities received in production

7. Negative Consumption Externalities received in consumption

8. Negative Consumption Externalities received in production

- Private cost is the cost faced by the individuals directly involved in a transaction.
- In the case of a producer, his private cost includes the direct cost of labour, materials, energy, and other indirect overheads.
- Social costs refer to the total costs to society on account of a production or consumption activity.

Social Costs Are

- private costs borne by individuals directly involved in a transaction, plus.
- external costs borne by third parties not directly involved in the transaction.

Social Cost = Private cost + External Cost

Negative Consumption Externality

It is a negative externality

- It is initiated in consumption, which imposes an external cost on others
- It may be received by another in consumption or production

Negative Consumption Externality received in production

Eg.:

1. The act of undisciplined students talking and creating disturbance in a class prevents teachers from making effective instruction
2. The case of excessive consumption of alcohol causing impairment in efficiency for work and production is, for instance of negative consumption externalities affecting production

Negative Consumption Externality Received in Consumption

Eg, smoking cigarettes in a public place causes passive smoking by others.

Positive Consumption Externality

It is a Positive externality

- It is initiated in consumption, which gives benefits to others
- It may be received by another in consumption or production

Positive Consumption Externality Received in Consumption

Eg: If people get immunised against contagious diseases, they would confer a social benefit to others as well by preventing others from getting infected.

Positive Consumption Externality Received in Production

Eg: Consumption of the services of a health club by employees of a firm would result in an external benefit to the firm in the form of increased efficiency and productivity.

Negative Production Externality

It is a negative externality

- It is initiated in production, which imposes an external cost on others
- It may be received by another in consumption or production

Negative Production Externality Received in Production

Eg: Factory discharges untreated waste into a nearby river and pollutes the water, which affects fish output, as there will be less catch for fishermen due to the loss of fish.

Negative Production Externality received in Consumption

Eg: Factory discharges untreated waste into a nearby river and pollutes the water, causing health hazards for people who use the water for drinking and bathing.

Positive Production Externality

It is a positive externality

- It is initiated in production. It confers external benefits on others
- It may be received in production or in consumption.

Please Note: As compared to negative Production Externality, Positive Production Externality are less common.

Positive Production Externality received in production

Eg: Firms provide training on skills that employees take beyond that job.

Positive Production Externality received in consumption

Eg: When an individual raises/produces an attractive garden, and the people walking by enjoy the garden.

Questions

1. When pollution of the river affects fish output as there will be less catch for fishermen due to the loss of fish resources. This is an example of _____.
   (*a*) Negative Production Externality received in production
   (*b*) Negative Production Externality received in consumption
   (*c*) Negative Consumption Externality received in consumption
   (*d*) Negative Consumption Externality received in production
2. Which of the following is an example of market failure?
   (*a*) Externalities (*b*) Low prices
   (*c*) Excess supply (*d*) Excludable and rival goods
3. Smoking in public is a case of:
   (*a*) Negative consumption externality (*b*) Negative production externality
   (*c*) Internalising externality (*d*) None of the above

Answers

1. (*a*) **2.** (*a*) **3.** (*a*)

Public Goods

- The concept of public goods was given by Paul A. Samuelson in 1954 through his paper 'The Pure Theory of Public Expenditure.
- Public goods are also known as collective consumption goods or social goods.

Characteristics of Public Goods

1. Consumption is collective in nature. No direct payment by the consumer.
2. Non-Rivalrous. It means that the consumption of a public good by one individual does not reduce the quality or quantity available for all others.

3. Non-excludable. If the good is provided, one individual cannot deny other individuals' consumption, even if they have not paid for it.
4. Indivisible. Each individual can consume equally.
5. More vulnerable to issues such as externalities, inadequate property rights, and free rider problems.

Features of Private Goods

1. **Rivalrous:** Can't be consumed collectively.
2. **Excludable:** Can deny others using the good.

Questions

1. The free rider problem arises because of:
   (*a*) Ability of participants to produce goods at zero marginal cost.
   (*b*) Marginal benefit cannot be calculated due to externalities.
   (*c*) The good or service is non-excludable.
   (*d*) General poverty and unemployment of people.
2. Markets do not exist:
   (*a*) For goods which have positive externalities
   (*b*) For pure public goods
   (*c*) For goods which have negative externalities
   (*d*) None of the above
3. An adequate amount of a pure public good will not be provided by the private market because of:
   (*a*) The possibility of free riding.
   (*b*) The existence of very low prices and low profits.
   (*c*) Governments would anyway produce them, so there will be overproduction.
   (*d*) There are restrictions as well as taxes on the production of public goods.
4. Which of the following statements is true in respect of Social Cost? **[May 2025]**
   (*a*) Social Cost = Private Cost + External Cost
   (*b*) Social Cost = Private Cost + External Cost – Total Negative Externalities
   (*c*) Social Cost = Private Cost + External Cost – Government Taxes
   (*d*) Social Cost = Private Cost + Total Negative Externalities – Government Taxes
5. Which of the following is not a characteristic of Public Goods? **[May 2025]**
   (*a*) Non-rival in consumption
   (*b*) Indivisibility
   (*c*) More vulnerable to externalities
   (*d*) Excludable

6. What does the term "lemon" mean in the model of "Lemons problem" developed by "George Akerlof" in relation to the used car market: **[May 2025]**

(*a*) Only good-quality used cars (*b*) Both poor and good quality used cars

(*c*) Average quality used cars (*d*) Scrapped used cars

Answers

1. (*c*) **2.** (*b*) **3.** (*a*) **4.** (*a*) **5.** (*d*) **6.** (*b*)

Incomplete Information

Complete information/Perfect information implies that both buyers and sellers have complete information about anything that may influence their decision-making.

But, this assumption is not fully satisfied in real markets because of

- complexity of products and services (e.g. cardiac surgery, financial products like mutual funds),
- difficulty of getting correct information, and
- deliberate misinformation by interested parties (e.g. highly persuasive advertisements).

Information failure results in market failure.

Asymmetric Information

Asymmetric information occurs when there is an imbalance in information between the buyer and the seller, i.e. when the buyer knows more than the seller or the seller knows more than the buyer.

This can distort choices. For example,

- The landlords know more about their properties than the tenants,
- a borrower knows more about their ability to repay a loan than the lender,
- a used-car seller knows more about the vehicle quality than the buyer,
- health insurance buyers know more about their state of health than the insurance companies, and
- some traders may possess insider information in financial markets.
- 'Lemons Problem' was developed by George Akerlof to explain problems of asymmetric information in the used car market.
- Here, Asymmetric Information is that the Seller knows more about the car's quality than the buyer.
- Types of Used Cars:
  - Good-quality cars
  - Bad-quality cars (called "lemons")
- Buyers cannot differentiate between good and bad cars, so they offer a price based on average quality.
- Result:
  - The price offered is lower than the acceptable price for good-quality cars.
  - Owners of good cars do not sell → only bad-quality cars ("lemons") remain.
  - Market becomes flooded with lemons → market failure occurs.

- Outcome of Lemons Problem:
  - Good-quality goods disappear from the market.
  - Low-quality goods dominate.
- Buyers either:
  - Buy a substandard product, or
  - Exit the market completely

Asymmetric informations are situations in which one party to a transaction knows a material fact that the other party does not.

This phenomenon is an important source of market failure.

Adverse selection and moral hazard are two central concepts related to the problem of information gaps in many markets.

Adverse Selection

- Adverse selection generally refers to any situation in which one party to a contract (seller) possesses information relevant to the contract that the corresponding party (buyer) does not have.
- This asymmetric information leads the party lacking relevant knowledge to make sub-optimal decisions and suffer adverse effects.
- Asymmetric information about quality eliminates high-quality goods from a market.
- Buyers end up either selecting a sub-standard product or leaving the market altogether.

Moral Hazard

Moral hazard arises whenever there is an externality (i.e., whenever an economic agent can shift some of its costs to others). It is about an informed person taking advantage of a less-informed person through an unobserved action.

It occurs when one party to an agreement knows that he need not bear the consequences of his bad behaviour and that the consequence, if any, would be borne by the other party. Therefore, he engages in risky behaviour or fails to act in good faith.

For example, a driver who has comprehensive insurance tends to exhibit a greater taste for risk-taking in getting to his destination quickly, and hence his interests contradict those of the insurer. This causes insurance premiums to rise for everyone, driving many potential customers out of the market.

Questions

1. A chemical factory has full information regarding the risks of a product, but continues to sell it. This is possible because of:

(*a*) Asymmetric information (*b*) Moral hazard

(*c*) Free riding (*d*) (*a*) and (*c*) above

2. Mr Amit, a stock market trader through inside information, comes to know that the share price of X Ltd is likely to go up in future, so he purchases the shares to make a gain by selling them later at a higher price. It is a case of: **[MTP]**

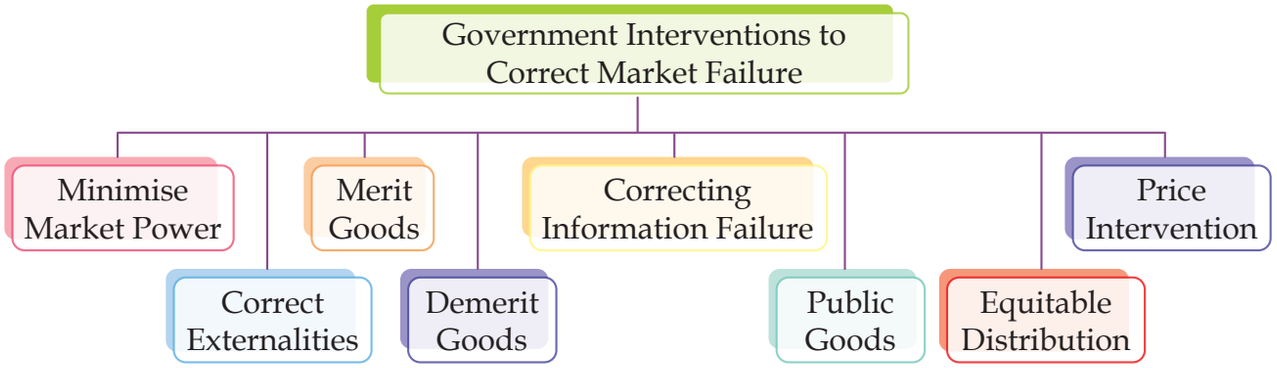
(*a*) Moral Hazard (*b*) Asymmetric Information

(*c*) Free Riding (*d*) None of the above

Answers

1. (*a*) **2.** (*b*)

GOVERNMENT INTERVENTIONS TO CORRECT MARKET FAILURE



Minimise Market Power

Market power contributes to inefficiency because it charges higher prices and produces lower output, leading to deadweight loss.

Because of the social costs imposed by monopoly, governments intervene by establishing rules and regulations designed to

- promote competition and
- prohibit actions that are likely to restrain competition.

These legislations differ from country to country.

1. India- Competition Act, 2002;
2. Competition Act 1998 UK
3. USA- Antitrust Laws

Other Measures Include Minimising Market Power

1. Market liberalisation by introducing competition in previously monopolistic sectors such as energy, telecommunication, etc.
2. Controls on mergers and acquisitions, if there is market domination, are possible
3. Patronage to consumer associations
4. Tough investigations into cartelization and unfair practices such as collusion and predatory pricing
5. Reduction in import controls
6. Nationalisation
7. Price capping and price regulation
8. Restrictions on the monopsony power of firms
9. Profit or rate of return regulation

However, sometimes we find that governments protect the monopoly positions of firms that have developed unique innovations.

For example, patent and copyright laws grant exclusive rights to products or processes to provide incentives for invention and innovation.

Another example is that of a permitted natural monopoly. Natural monopolies can produce the entire output of the market at a cost that is lower than what it would be if there were several firms. Examples of such natural monopolies are electricity, gas and water supplies.

In order to control the market power of such natural monopolies, governments usually regulate the price of the goods and services provided by them.

Questions

1. The Competition Act, 2002, aims to:

(*a*) Protect the monopoly positions of firms that have developed unique innovations.

(*b*) To promote and sustain competition in markets.

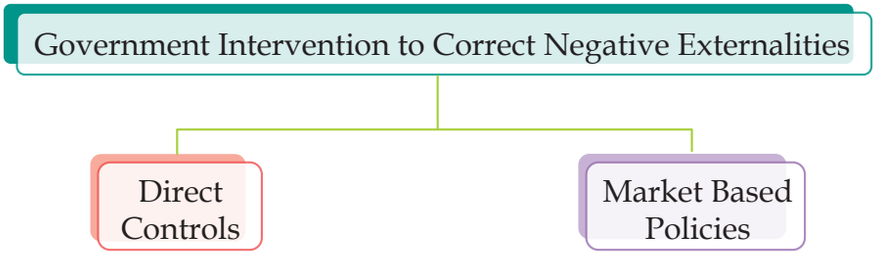
(*c*) To determine pricing under a natural monopoly.

(*d*) None of the above

Answers

1. (*b*)

Government Intervention to Correct Negative Externalities



Direct Controls

Direct controls or command solutions prohibit activities that create negative externalities or require that negative externalities be limited to a certain level.

For Example,

- Limiting the amount of pollutants released into water and air by making it mandatory to use pollution control devices.
- Licensing production quotas and mandates regarding acceptable production processes.
- Production, use and sale of some commodities can be banned. Eg: Smoking in public places.
- Pass Laws to alleviate the effects of negative externalities. Like the Environment (Protection) Act, 1986.
- The government may pass legislation like fixing emissions standards, i.e. a legal limit on how much pollutant a firm can emit. If the firm exceeds the limit, it can invite monetary penalties.
- The firms have to install pollution-abatement mechanisms to ensure adherence to the emission standards. This will lead to additional expenditure for the firm, leading to a rise in the firm's average cost.

- Charge an emissions fee, which is levied on each unit of a firm's emissions.
- Form special bodies/boards to specifically address the problem: for example, the Ministry of Environment and Forest, the Pollution Control Board of India, etc.

Market-Based Policies

Market-based policies provide economic incentives so that self self-interest of market participants would achieve the socially optimal solution.

The market-based approaches focus on the generation of a market price for pollution, achieved by

- Setting price directly - by pollution tax
- Setting price indirectly - by a cap-and-trade system

The key to internalising an externality is to ensure that those who create the externalities include them while making decisions. (Through Pollution Tax)

The second approach to establishing prices indirectly is 'tradable emissions permits'. (Through the carbon credits system)

Pollution Tax

The size of the pollution tax depends on the amount of pollution a firm produces. This tax is known as Pigouvian taxes, named after A.C. Pigou.

These taxes, by 'making the polluter pay', seek to internalise the external costs into the price of a product or activity.

Tax increases the private cost and thus decreases the output of the good, which creates a negative externality.

The proceeds from the tax can be used for projects that protect or enhance the environment.

Problems in Administering an Efficient Pollution Tax

1. Pollution taxes are difficult to determine and administer as they involve the use of complex and costly administrative procedures for monitoring the polluters/factories.
2. If demand for the good is inelastic, the tax may have only an insignificant effect in reducing demand. In such cases, the producers will be able to easily shift the tax burden in the form of higher product prices.
3. Pollution taxes also have potential negative consequences on employment and investments because high pollution taxes in one country may encourage producers to shift their production facilities to those countries with lower taxes.

Tradable Emission Permits

- The use of tradable permits to limit emissions is often called 'cap and trade'.
- A tradable permit is a license that allows a company to release a unit of pollution into the environment over some period of time. By issuing a fixed number of permits, the government determines the total level of pollution that can be legally emitted during each period (the 'cap').
- Each firm has permits specifying the number of units of emissions that the firm is allowed to generate. A firm that generates emissions above what is allowed by the permit is penalised with substantial fines.

Tradable permits have been used since the early 1980s to reduce several types of pollution in the United States.

In 1994, the United States began a cap and trade system for sulphur dioxide emissions that cause acid rain by issuing permits to power plants based on their historical consumption of coal.

India does not have an explicit carbon price or a market-based mechanism such as cap-and-trade, but India has many schemes and mechanisms that put an implicit price on carbon.

For example,

- The Perform, Achieve and Trade (PAT) scheme
- Carbon tax in the form of a cess on coal, lignite and peat
- Renewable Purchase Obligations (RPO)
- Renewable Energy Certificates (REC)
- Internal Carbon Pricing (ICP), etc.

In 2017, the coal cess was abolished and replaced by the GST compensation cess since it failed to achieve the desired outcomes.

The Energy Conservation (Amendment) Bill, 2022, empowers the central government to specify a carbon credit trading scheme and to stipulate energy consumption standards.

Question

1. The cap and trade method used by the government to ensure that pollution is minimised in the most cost-effective way is an example of: **[Jan. 2025]**

(*a*) Government intervention to correct externalities.

(*b*) Government intervention in the case of merit goods.

(*c*) Government intervention in the case of demerit goods.

(*d*) Government intervention for correcting market failure.

Answer

1. (*a*)

Government Intervention to Correct Positive Externalities

Though positive externality gives external benefits, we still call it a market failure because, if left to the market, there will be less than optimal output

Since positive externalities promote welfare, governments implement policies that promote positive externalities.

When positive externalities are present, the government may attempt to solve the problem through:

(a) Corrective subsidies to the producers aimed at increasing the supply of the good. (Eg- fertiliser subsidy)

(b) Corrective subsidies to consumers aimed at increasing the demand for the good. (Eg- A subsidy on the fee for education is an example of a consumption subsidy)

- As we are aware, a corrective production subsidy involves the government paying part of the cost to the firms to promote the production of goods having positive externalities. This is, in fact, a market-based policy as subsidies to producers would lower their cost of production.
- In the case of goods whose externalities are vastly positive, the government enters the market directly as an entrepreneur to produce and provide them. Eg- Public education, health care, etc.
- Governments also engage in direct production of environmental quality. Eg- afforestation, reforestation, protection of water bodies, treatment of sewage and cleaning of toxic wastes.

Questions

1. Which of the following statements is false?

(*a*) Tradable permits provide an incentive to innovate and reduce negative externalities.

(*b*) A subsidy on a good which has substantial positive externalities would reduce its cost, and consequently, its price would be lower.

(*c*) Substantial negative externalities are involved in the consumption of merit goods.

(*d*) Merit goods are likely to be under-produced and under-consumed through the market mechanism.

2. A Pigouvian subsidy:

(*a*) Cannot be present when externalities are present.

(*b*) Is a good solution for negative externality, as prices will increase.

(*c*) Is not measurable in terms of money and therefore not practical.

(*d*) May help production to be socially optimal when positive externalities are present.

3. A government subsidy:

(*a*) Is a market-based policy.

(*b*) Involves the government paying part of the cost to the firms in order to promote the production of goods having positive externalities.

(*c*) Is generally provided for merit goods.

(*d*) All the above

Answers

1. (*c*) **2.** (*d*) **3.** (*d*)

Government Intervention in the Case of Demerit Goods

Point	Description
Concept	**1.** Demerit foods: (a) are socially undesirable (b) Gives negative externalities
	2. Examples: Tobacco, Cigarettes, Alcohol, Intoxicating Drugs, Narcotic Substances, etc.





Point	Description
Forms of Government Intervention in Demerit Goods	1. Complete Prohibition/ban: like drugs are illegal
	2. Persuasion: Negative Advertising Campaigns and persuade consumers to reduce or avoid the consumption, e.g. Cigarettes.
	3. No Promotion: Govt. may prohibit the Advertising or Promotion of Demerit Goods
	4. Regulations as to Sale: The Government imposes regulations to limit access to the Demerit Goods, to vulnerable groups like Children and Adolescents.
	5. Time and Space Restrictions: There may be Regulatory Controls as to (a) space, e.g. smoking in public places, sale of tobacco to be away from Schools, and (b) time at particular times during the day when sale is banned.
	6. Higher Tax Rates:
	7. Price Controls: Government can fix a Minimum Price below which the Dement Good should not be sold.

Government Intervention in the Case of Merit Goods

Point	Description
Cocept	**1.** Merit Goods: (a) are socially desirable (b) gives positive externalities **2.** Examples: Health, Education, etc: ❍ Compulsory Insurance Protection ❍ Compulsory Immunization → Vaccination ❍ Use of legislation (Bg. Use of helmets, Seatbelts) ❍ Free Education ❍ Free Medical Services

Point	Description
Public Goods	1. Some Public Goods are provided only by the government. Examples: defence, fire protection, legal system, Atomic Energy, Nuclear Power Facility, Security at Airports, etc.
	2. For Public Goods where Entry Fees can be charged (Excludable Public Goods), the Government can (a) itself provides such Goods, and charges Entry Fees which can be used to finance the cost of providing such Goods, or (b) grant license, it's good to have

Government Intervention in the Case of Public Goods

Some goods are produced and consumed as public goods and services even though they can be produced or consumed as private goods.

This is because, left to the markets and profit motives, these may prove dangerous to society.

Examples are scientific approval of drugs, production of strategic products such as atomic energy, provision of security at airports, etc.

Question

1. Which of the following is the right argument for the provision of a public good by the government?

(*a*) Governments have huge resources at their disposal.

(*b*) Public goods will never cause any type of externality.

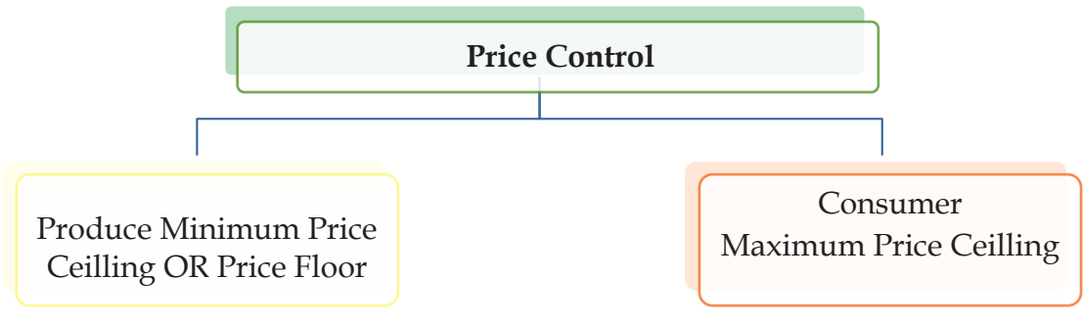
(*c*) Markets are unlikely to produce a sufficient quantity of public goods.

(*d*) Provision of public goods is very profitable for any government.

Answer

1. (*c*)

Price Intervention



(A) Setting Maximum Prices of Foodgrains during times of scarcity.

(B) Government Procurement and stocking of Foodgrains to stabilise prices and consumption.

Question

1. Which of the following is not true regarding the Minimum Support Price (MSP) mechanism in India? **[MTP]**

(*a*) MSP works on the principle of Price Ceiling

(*b*) MSP works on the principle of Price Flooring

(*c*) At the price fixed, there exists excess supply

(*d*) Govt. procures the excess supply of farmers

Answer

1. (*a*)

Govt Intervention in the case of Asymmetric Information

Point	Description
Information Failure	Government intervention in rectifying information failure includes the following: 1. Regulations making it mandatory to have accurate disclosures and content disclosures by Producers, for example: Disclosures in the Offer Document as per SEBI Regulations. 2. Direct Public Dissemination of information by conce 3. Providing Subsidies to Agencies which disseminate relevant information and take initiatives, 4. Regulations and Standards to read advertising more responsibly, in a formative and less persuasive era

For Equitable Distribution

One of the most important activities of government is to redistribute incomes so that there is equity and fairness in society.

- Progressive taxes
- Unemployment allowances
- Job Reservations
- Land Reforms
- Gender Sensitive Budgeting

But sometimes Government Failure Occurs when

- Intervention is ineffective, causing the Wastage of Resources
- Intervention produces fresh and More Serious Problems

Questions

1. The statutory disclaimer that "Mutual Fund investments are subject to market risks. Please read the offer documents carefully before investing" is which of the following types of government intervention? **[May 2025]**

(*a*) Government intervention to correct externalities.

(*b*) Government intervention for equitable distribution.

(*c*) Government intervention to correct information failure.

(*d*) Government intervention in cthe ase of public goods.

2. Identify the incorrect statement

(*a*) Minimum support price for agricultural goods is a market intervention method to guarantee steady and assured incomes to farmers.

(*b*) An externality is internalised if the ones that generated the externality incorporate them into their private cost-benefit analysis.

(*c*) The production and consumption of demerit goods are likely to be less than optimal under free markets.

(*d*) Compared to pollution taxes, the cap and trade method is administratively cheap and simple to implement and ensures that pollution is minimised in the most cost-effective way.

3. The incentive to let other people pay for a good or service, the benefits of which are enjoyed by an individual

(*a*) Is a case of negative externality

(*b*) Is a case of market efficiency

(*c*) Is a case of free riding

(*d*) Is inappropriate and warrants action

Answers

1. (*c*) **2.** (*c*) **3.** (*c*)

UNIT 3: THE PROCESS OF BUDGET MAKING: SOURCES OF REVENUE, EXPENDITURE MANAGEMENT AND MANAGEMENT OF PUBLIC DEBT

Governments all over the world have to perform manifold functions such as protecting their territories, maintaining law and order, providing public goods and implementing comprehensive plans for economic and social welfare. To execute these functions efficiently, the government requires adequate financial resources. Budget is a powerful policy instrument in the hands of government to regulate and to restructure a country's economic priorities.

The need for budgeting arises from the need to efficiently allocate limited resources to ensure maximum social welfare. The government needs to reallocate resources in accordance with its declared priorities and proper budgeting enables redistribution of income and wealth. The other objectives of budgets include reduction or elimination of economic fluctuations, sustainable increase in real GDP and reduction in regional disparities. A budget is a statement presenting details of where the money comes from and where it goes. It is an annual document containing estimates of proposed expenditure and the means of financing them. It includes projections of receipts and expenditures from various sectors and provides budget estimates along with actual and revised figures. Apart from the union budget, state and local bodies have their own budget processes, though the focus here is on the union budget only.

THE PROCESS OF BUDGET MAKING

- The budgetary process is the process by which the executive and legislative branches together formulate a coherent/clear set of taxing and spending proposals.
- The finances of the government of India have traditionally been controlled by the Ministry of Finance.
- The budget is prepared by the Ministry of Finance in consultation with NITI Aayog and other relevant ministries.
- The budget must be presented and approved by both houses of parliament before the beginning of the fiscal year (April 1 to March 31).

The budgetary procedures are:

(i) Preparation of the budget,

(ii) Presentation and enactment of the budget, and

(iii) Execution of the budget.

The budget process mainly consists of two types of activities

1. The administrative process, wherein the budget, along with the accompanying documents, is prepared in consultation with various stakeholders;
2. The legislative process wherein the budget is passed by the parliament after discussions.
   - Although the union budget is presented on 1st February (or any other suitable date as decided by the government), the process of budget preparation commences in August-September of the previous year.
   - The Budget Division of the Ministry of Finance prepares a comprehensive schedule for carrying out budget preparation activities.
   - The process of budget making is set off with the Budget Division issuing the budget circular containing detailed instructions and formats for preparing the estimates to all ministries, states, union territories and autonomous bodies.

- The detailed estimates of expenditure are prepared by ministries and departments according to their assessment of requirements for the subsequent year. Every department prepares estimates for receipts and expenditure separately.
- A series of pre-budget consultations is done by the Union Finance Minister with the finance ministers and chief ministers of states, various stakeholders and interest groups, including industry associations, representatives from agriculture and social and welfare sectors, labour organisations, experts from NITI Aayog, economists, etc., to elicit/show their suggestions on the proposed budget.
- The budget is presented in the Parliament in such form as the Finance Ministry may decide after considering the suggestions (if any) of the Estimates Committee.

Broadly, the budget documents depict information relating to receipts and expenditure for two years. They are:

(i) Budget estimates (BE) of receipts and expenditure in respect of the current and ensuing/upcoming financial year

(ii) For the current year through Revised Estimates (RE), and

(iii) Actuals of the year preceding the current year – previous year

The budget speech is mainly a policy document which draws attention to the proposed policies and programmes of the government. The finance minister makes a detailed budget speech at the time of presenting the budget before the Lok Sabha.

The budget speech presents details of the proposals for the new financial year regarding taxation, borrowings and expenditure plans of the government.

Budget Speech is Usually in Two Parts



- **Part A** of the budget speech gives an outline of the prevailing macroeconomic situation of the country and the budget estimates for the next financial year. Elaborating on the priorities of the government, the minister presents a broad framework of the total funds raised by the government via taxes or borrowings, proposed government expenditure allocations for different sectors and fresh schemes for different sectors.
- **Part B** of the budget speech details the progress the government has made on various developmental measures, the direction of future policies and the government's tax proposals for the upcoming financial year, including variations in the current taxation system.

The list of budget documents presented to the parliament, besides the finance minister's budget speech, is given below:

1. Annual Financial Statement (AFS)
2. Demands for Grants (DG)
3. Finance Bill
4. Statements mandated under the FRBM Act 2003
   (i) Macro-Economic Framework Statement
   (ii) Medium-Term Fiscal Policy cum Fiscal Policy Strategy Statement

Nine other documents, which are like explanatory statements supporting the mandated documents, are also presented along with the documents mentioned above.

The expenditures of certain categories (e.g. the emoluments/ compensation and allowances of the President of India and his/her office, and emoluments of Judges of the Supreme Courts and high-ranking personnel of constitutional bodies across India) are 'charged' on the Consolidated Fund of India and are not subject to the vote of parliament, and are also indicated separately in the budget.

By Convention, in an Election Year, The Budget May be Presented Twice

- The first one is to first secure a Vote on Account for a few months – Interim in Budget.
- This is followed by the Annual financial statement for that year or the full-fledged Budget.
- After the Finance Bill has been passed by the Lok Sabha, it is transmitted to the Rajya Sabha for its recommendations.
- The bill being a money bill, the Rajya Sabha has to return it within a period of 14 days, with or without recommendations. The recommendations of the Rajya Sabha may be accepted or rejected by the Lok Sabha.

However, from 2017-18, the date of presentation of the budget has been advanced to 1st February. An important budgetary reform was the merger of the railway budget with the general budget from the budget for the financial year 2017-18.

Some Basic Concepts of Government Budget are Explained below

Govt. Budget			
Receipts	**Amt.**	**Expenditure**	**Amt.**
Revenue Receipts		Revenue Expenditure	
Capital Receipts		Capital Expenditure	
Total Receipts		Total Expenditure	

Capital Receipts and Revenue Receipts

Capital receipts are those receipts that lead to a reduction in the assets or an increase in the liabilities of the government.

Examples include recoveries of loans, earnings from disinvestment and debt.

Revenue receipts are those receipts which neither create any liability nor cause any reduction in the assets of the government.

There are two sources of revenue receipts for the government – tax revenues and non-tax revenues.

Revenue Expenditure

Revenue expenditure is expenditure incurred for purposes other than the creation of physical or financial assets of the central government.

It relates to those expenses incurred for the normal functioning of the government departments and various services, interest payments on debt incurred by the government, and grants given to state governments and other parties (even though some of the grants may be meant for the creation of assets).

Capital Expenditure

There are expenditures of the government which result in the creation of physical or financial assets or a reduction in financial liabilities. This includes expenditure on the acquisition of land, building, machinery and equipment, investment in shares, and loans and advances by the central government to state and union territory governments, PSUs and other parties.

When a government spends more than it collects by way of revenue, it incurs a budget deficit. There are various measures that capture government deficit, and they have their own implications for the economy.

- In simple terms, a budget is a statement that presents the details of 'where the money comes from' and 'where the money goes to.
- The budget is the most comprehensive report of the government's finances.

3 Eeparate Parts Under which govt. Accounts are Maintained, Namely

1. Consolidated Fund of India
2. Contingency Fund of India
3. Public Account

Consolidated Fund of India

All revenues received, loans raised, and all moneys received by the government in repayment of loans are credited to the Consolidated Fund of India, and all expenditures of the government are incurred from this fund.

Money can be spent through this fund only if appropriated by the parliament. The consolidated Fund has further been divided into 'revenue' and 'capital' divisions.

Contingency Fund of India

A fund placed at the disposal of the President to enable him/her to make advances to the executive/ Government to meet urgent unforeseen expenditure.

The contingency fund enables the government to meet unforeseen expenditure and does not require prior legislative approval.

For meeting such exigencies/urgencies, advances are made to the executive from the contingency fund, which is subsequently reported to the Parliament for recoupment/recovery from the Consolidated Fund of India.

Public Account

Under provisions of Article 266(1) of the Constitution of India, public account is used in relation to all the fund flows where the government acts as a banker.

Examples include Provident Funds and Small Savings. This money does not belong to the government but is to be returned to the depositors. The expenditure from this fund need not be approved by the parliament.

- Despite the fact that the term 'budget' has not been used in the Indian Constitution, the process of making it is referred to as budgeting.
- Article 112 of the Constitution provides that in respect of every financial year, the President shall cause to be laid before both the houses of Parliament a statement of the estimated receipts and expenditure of the Government of India for that year, referred to as the "Annual Financial Statement".

Appropriation Bill

The Appropriation Bill is intended to give authority to the government to incur expenditure from and out of the Consolidated Fund of India.

Cut Motions

Motions for reduction to various demands for grants are made in the form of cut motions seeking to reduce the sums sought by the government on grounds of economy or difference of opinion on matters of policy, or just in order to voice a grievance.

Guillotine

The parliament has a very limited time for examining the expenditure demands of all the ministries. So, once the prescribed period for the discussion on demands for grants is over, the Speaker of Lok Sabha puts all the outstanding demands for grants, whether discussed or not, to the vote of the house.

This process is popularly known as 'Guillotine'.

Finance Bill

The Bill was produced immediately after the presentation of the union budget detailing the Imposition, abolition, alteration or regulation of taxes proposed in the budget.

Outcome Budget

The outcome budget is a progress card on what various ministries and departments have done with the outlays in the previous annual budget.

It measures the development outcomes of all government programs and whether the money has been spent for the purpose it was sanctioned, including the outcome of the fund usage.

Questions

1. The Appropriation Bill is intended to:

(*a*) Reduce unnecessary expenditure on the part of the government.

(*b*) Give authority to the government to incur expenditure from and out of the Consolidated Fund of India.

(*c*) Give authority to the government to incur expenditure from the revenue receipts only.

(*d*) Be passed before the budget is taken for discussion.

2. Outcome budgeting:

(*a*) Shares information about the money allocated for various purposes in a budget.

(*b*) Establishes a direct link between budgetary allocations and performance targets measured through output and outcome indicators.

(*c*) Establishes a direct link between budgetary performance targets and public account disbursals.

(*d*) Shares information about public policies and programmes under the budget.

3. Which of the following is a statement submitted along with the budget as a requirement of the FRBM Act?

(*a*) Annual Financial Statement

(*b*) Macro-Economic Framework Statement

(*c*) Medium-Term Fiscal Policy cum Fiscal Policy Strategy Statement

(*d*) (*b*) and (*c*) above

4. Grants given by the central government to state governments are

(*a*) A revenue expenditure, as it is meant to meet the current expenditure of the state.

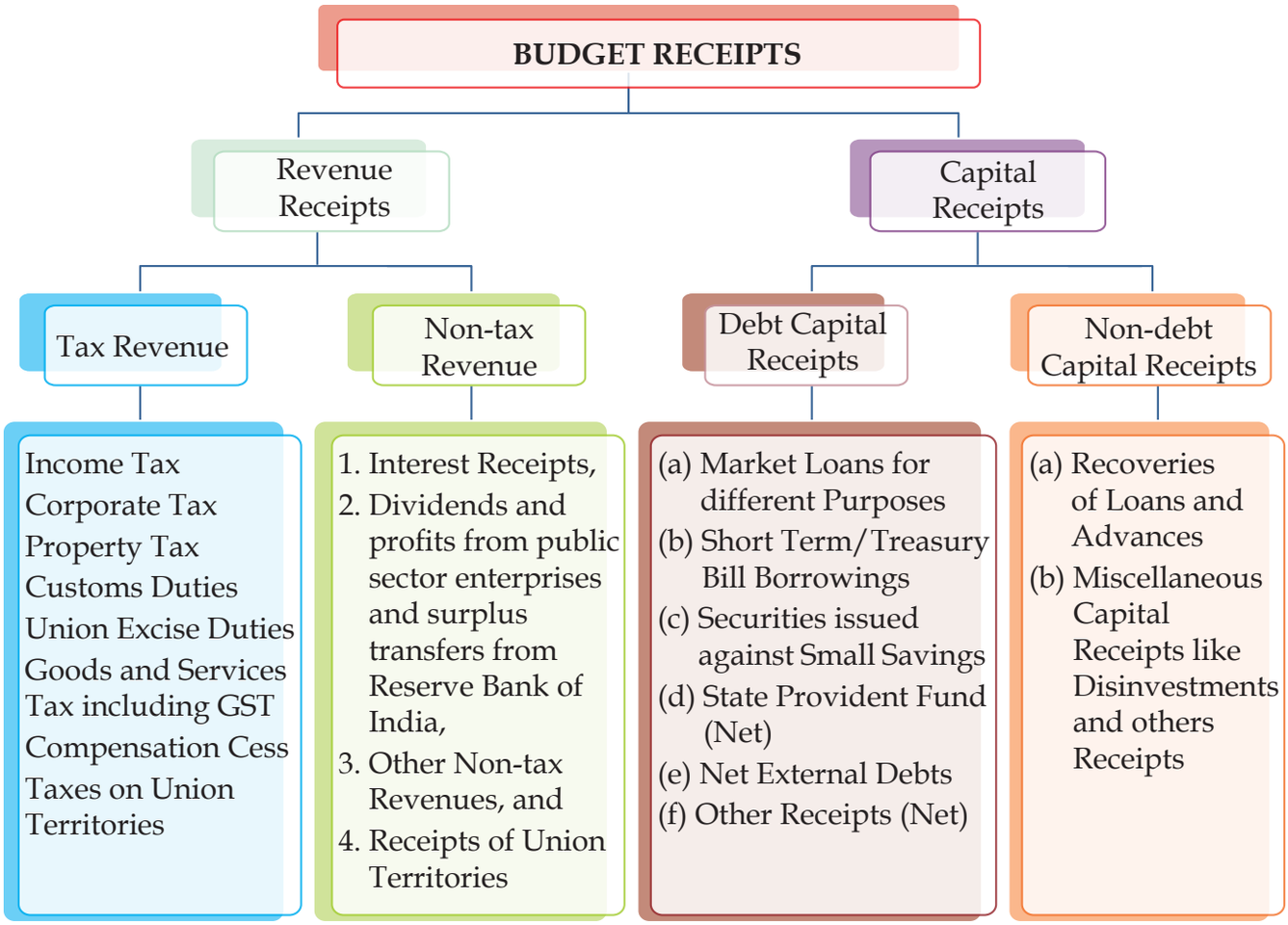
(*b*) A revenue expenditure, as it neither creates any assets nor reduces any liability of the government.

(*c*) A capital expenditure because it increases the capital base of the states.

(*d*) It is a grant and so does not come under revenue expenditure or capital expenditure.

Answers

1. (*b*) **2.** (*b*) **3.** (*d*) **4.** (*b*)



Questions

1. The receipts which neither create any liability nor cause any reduction in the assets of the government are called: **[Jan. 2025]**

(*a*) Non-debt capital receipts

(*b*) Debt capital receipts

(*c*) Revenue receipts

(*d*) Estimated receipts

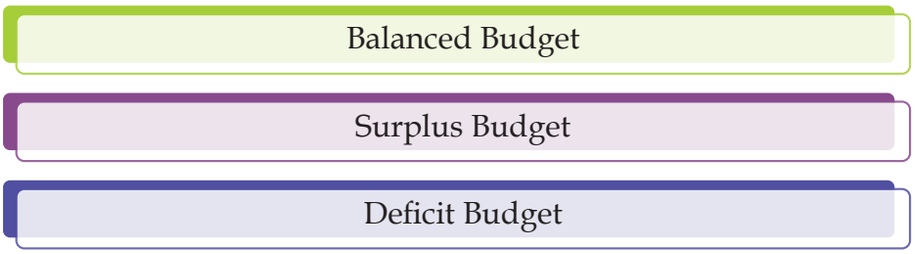
2. Article 112 of the Indian Constitution provides that in respect of every financial year, the President shall cause to be laid before both houses of the Parliament a statement of estimated receipts and expenditure of the Government of India for that year. This statement is referred to as: **[May 2025]**

(*a*) Budget
(*b*) Annual Financial Statement
(*c*) Statement of Income & Expenditure
(*d*) Interim Budget

Answers

1. (*c*) **2.** (*b*)

Types of Government Budget



Question

1. A budget is said to be unbalanced when
   (*a*) When the government's revenue exceeds the government's expenditure
   (*b*) When the government's expenditure exceeds the government's revenue
   (*c*) Either a budget surplus or a budget deficit occurs
   (*d*) All the above

Answer

1. (*d*)

Types of Budget Deficit

1. Revenue Deficit
2. Fiscal Deficit
3. Primary Deficit

Revenue Deficit

Revenue Deficit = Revenue Expenditure – Revenue Receipt

Fiscal Deficit

Fiscal Deficit = Total Expenditure – Total Receipts (Net of Borrowings)
= Revenue exp. + Capital Exp. – (Revenue receipts + Non-Debt. Capital receipts)
= Revenue Exp. + Capital Exp. – Revenue Receipts – Non-Debt. Capital receipts
= Revenue Deficit + Capital Exp. – Non-Debt. Capital Receipt

Primary Deficit

Primary Deficit = Fiscal Deficit – Net interest liabilities.

Questions

1. The revenue deficit for country A is

Point	₹ Crore
Revenue Receipts	20,000
Recovery of loans	1,500
Borrowing	15,000
Other Receipts	5,000
Expenditure on Revenue Account	24,500
Expenditure on Capital Account	26,000
Interest Payments	2,000

(*a*) 5,000 (*b*) 24,000

(*c*) 4,500 (*d*) None of the above

2. The fiscal deficit of country A is

Point	₹ Crore
Revenue Receipts	20,000
Recovery of loans	1,500
Borrowing	15,000
Other Receipts	5,000
Expenditure on Revenue Account	24,500
Expenditure on Capital Account	26,000
Interest Payments	2,000

(*a*) 14,000 (*b*) 24,000

(*c*) 23,500 (*d*) None of the above

3. Primary deficit of Country A is

Point	₹ Crore
Revenue Receipts	20,000
Recovery of loans	1,500
Borrowing	15,000
Other Receipts	5,000
Expenditure on Revenue Account	24,500
Expenditure on Capital Account	26,000
Interest Payments	2,000

(*a*) 26,000 (*b*) 26,500

(*c*) 22,000 (*d*) 24,500

4. Non-debt capital receipts of the government include: **[Jan. 2025]**

(*a*) Market loans for different purposes (*b*) State provident fund (Net)

(*c*) Securities issued against small savings (*d*) Recoveries of loans and advances

Answers

1. (*c*) **2.** (*b*) **3.** (*c*) **4.** (*d*)

SOURCES OF REVENUE

The Department of Revenue of the Ministry of Finance exercises control over the revenue matters relating to direct and indirect union taxes.

This department also handles the matter regarding GST, central sales tax, stamp duties and other relevant fiscal statutes/laws.

The Department of Revenue controls tax matters through two statutory boards -

1. The Central Board of Direct Taxes (CBDT) – Handles Matters relating to the levy and collection of all direct taxes and
2. The Central Board of Indirect Taxes and Customs (CBIC) – handles matters relating to the levy and collection of GST, Customs, and central excise duties, service tax and other Indirect taxes fall within the purview of the CBIC.

Centre's net tax revenue is the total of tax revenue after paying the states' share and the National Calamity Contingent Duty (NCCD) transferred to the National Calamity Contingency.

Various Social Services Provided by the Government, such as

Medical services, public health; broadcasting, education, sports, art and culture, housing; and economic services such as communication, energy, transport, science, technology and environment, railways and general administrative services also yield revenue for the government

PUBLIC EXPENDITURE MANAGEMENT

Public expenditure management is the process that allows governments to be fiscally responsible. Public expenditure programmes or projects should be designed and implemented to provide given levels of outputs or achieve specific objectives at minimum cost.

The economic costs of unproductive public expenditures can be extensive and may have far-reaching effects, such as:

- larger deficits
- higher levels of taxation,
- lower economic growth,
- fewer resources available for use elsewhere, and
- A greater debt burden in the future.

The Department of Expenditure of the Ministry of Finance is the nodal department for overseeing the public financial management system in the central government and matters connected with state finances.

It is responsible for

- The implementation of the recommendations of the Finance Commission and the Central Pay Commission
- monitoring of audit comments/observations, and
- preparation of central government accounts
- Additionally, it also assists central ministries/departments in controlling the costs and prices of public services

- reviewing systems and procedures to optimise outputs and outcomes of public expenditure.
- One of the explanatory documents of the budget document is the 'Expenditure Profile' (earlier known as expenditure budget), consisting of relevant data across all ministries/ departments to outline a profile of the general financial performance of the government of India.
- It gives an aggregation of various types of expenditure and certain other items across demands.

In the Expenditure budget, the Central government expenditure is classified into six broad categories as below:

A. Centre's Expenditure:
   (1) Establishment Expenditure of the Centre;
   (2) Central sector Schemes, and
   (3) Other central Expenditures, including those on CPSE and Autonomous Bodies

B. Centrally Sponsored Schemes and other Transfers:
   (4) Centrally Sponsored schemes
   (5) Finance Commission transfers and
   (6) Other transfers to the state

PUBLIC DEBT MANAGEMENT

- In emerging markets and developing economies, the government is generally the largest borrower.
- Government debt from internal and external sources credited in the Consolidated Fund of India is defined as Public Debt.
- The government raises funds primarily from the domestic market using market-based and fixed-rate instruments to finance its fiscal deficit.
- Public debt is not a one-time exercise of borrowing and repaying.
- Debt servicing is a continuous exercise; as a portion of debt falls due each month, the government does not usually cut expenditure or raise taxes to provide funds to retire or repay the maturing bonds. Rather, the government simply refinances the debt, i.e. it sells new bonds and uses the proceeds to pay off holders of the maturity bonds.
- Hence, public debt management becomes a crucial task or responsibility of the government and plays an important role in the macroeconomic stability of a country.
- Public debt management refers to the task of determining,
  1. the size and composition of debt,
  2. the maturity pattern,
  3. interest rates,
  4. redemption of debt

This task is done by the fiscal and monetary authorities,

- The overall objective of the central government's debt management policy is
  1. To "meet the central government's financing needs at the lowest possible long-term borrowing costs and
  2. Also, to keep the total debt within sustainable levels.

3. Additionally, it aims at supporting the development of a well-functioning and vibrant domestic bond market".

- Debt management strategy is based on three broad pillars, namely.

(i) low cost of borrowing,

(ii) risk mitigation and

(iii) market development.

The Institutions Responsible for Public Debt Management are:

1. Reserve Bank of India – domestic marketable debt, i.e., dated securities, treasury bills and cash management bills.
2. Ministry of Finance (MOF) – external debt
3. Ministry of Finance, Budget Division and Reserve Bank of India– Other liabilities such as small savings, deposits, reserve funds, etc.

The responsibility of managing the domestic debt of the central government and of 28 state governments and two union territories is entrusted to the Internal Debt Management Department (IDMD) of the Reserve Bank of India. The RBI acts as the debt manager for marketable internal debt.

Treasury bills are issued to meet the short-term requirements of the government. and Dated securities are issued to mobilise long-term resources to finance the fiscal deficit.

From 1997 onwards, the Reserve Bank also provides short-term credit up to three months to state governments in the form of Ways and Means Advances (WMA) to bridge temporary mismatches in cash flows.

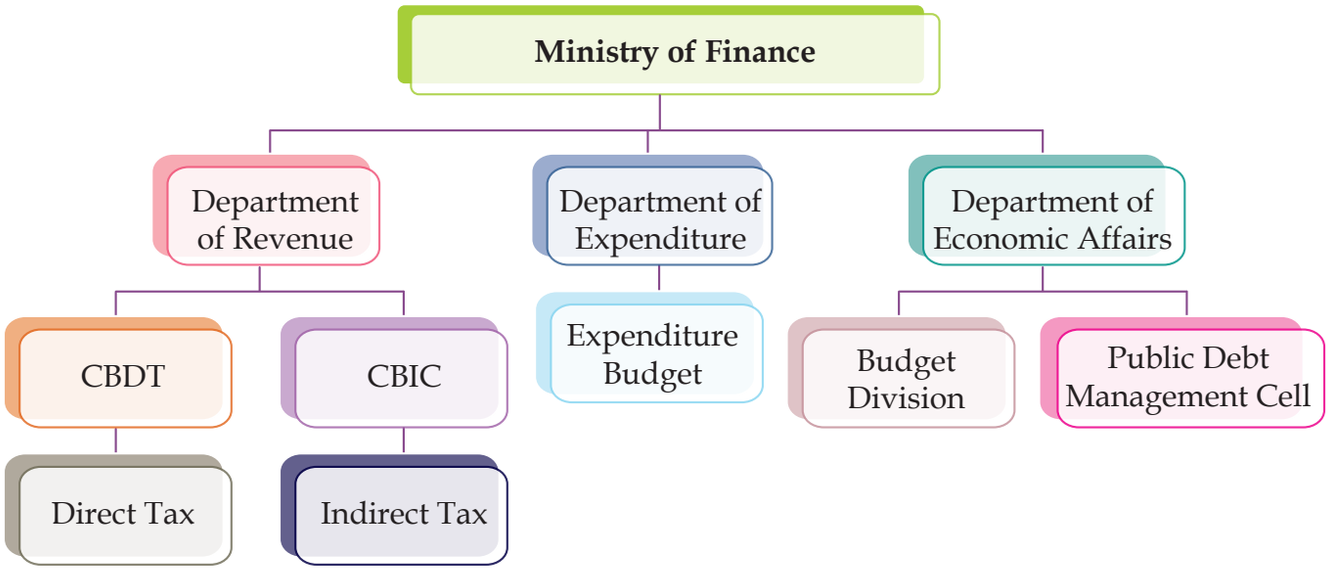
The Reserve Bank has been proactively engaged in the development of the government securities (G-sec) market, including the broadening of investor participation. As part of continuing efforts to increase retail participation in G-sec, the RBI Retail Direct facility was announced on February 5, 2021:

- for improving the ease of access by retail investors through online access to the primary and secondary government securities market
- to provide the facility to open their government securities account ('Retail Direct') with the Reserve Bank.
- External debt (bilateral and multilateral loans) is managed by the Department of Economic Affairs in the Ministry of Finance (MoF).
- Most of the external debt is sourced from multilateral agencies (International Bank for Reconstruction and Development, Asian Development Bank, etc.).
- The risk associated with external debt is the depreciation in the value of the domestic currency vis-à-vis the currency of denomination of external loans, leading to an increase in the government's debt servicing costs.

The Public Debt Management Cell (PDMC) was created in 2016 under the Department of Economic Affairs.

The Medium-Term Debt Management Strategy (MTDS) 2021-24 is a framework for determining the appropriate composition of the debt portfolio.

The objective of the debt management strategy is to efficiently raise debt at the lowest possible cost in the medium term while ensuring that financing requirements are met without disruption.



Question

1. Short-term credit from the Reserve Bank to state governments to bridge temporary mismatches in cash flows is known as

(*a*) RBI credit to states
(*b*) Commercial credit of RBI
(*c*) Ways and Means Advances (WMA)
(*d*) Short-term facility

Answer

1. (*c*)

The Fiscal Responsibility and Budget Management (FRBM) was passed in 2003 to provide a legislative framework for the reduction of the deficit and thereby the debt of the central government to a sustainable level.

The Objectives of the Act are

- inter-generational equity in fiscal management
- long run macroeconomic stability,
- better coordination between fiscal and monetary policy, and
- transparency in the fiscal operation of the government

Question

1. Which of the following is the nodal department for overseeing the public financial management system in the Central Government? **[May 2025]**

(*a*) NITI Aayog
(*b*) Department of Revenue under the Finance Ministry
(*c*) Department of Expenditure under the Finance Ministry
(*d*) Reserve Bank of India

Answer

1. (*c*)

MEANING OF FISCAL POLICY

Fiscal policy or Budgetary policy is made by the central government related to changes in

1. Spending/ Govt. expenditure (G),
2. taxation (T) and
3. Borrowing/ Public Debt.

Through Fiscal Policy, Govt. tries to Tnfluence

- pattern of economic activity and
- level of growth of AD, output and employment

Objectives of Fiscal Policy

The most common objectives of fiscal policy are:

1. Achievement and maintenance of full employment
2. Maintenance of price stability,
3. Acceleration of the rate of economic development
4. Equitable distribution of income and wealth

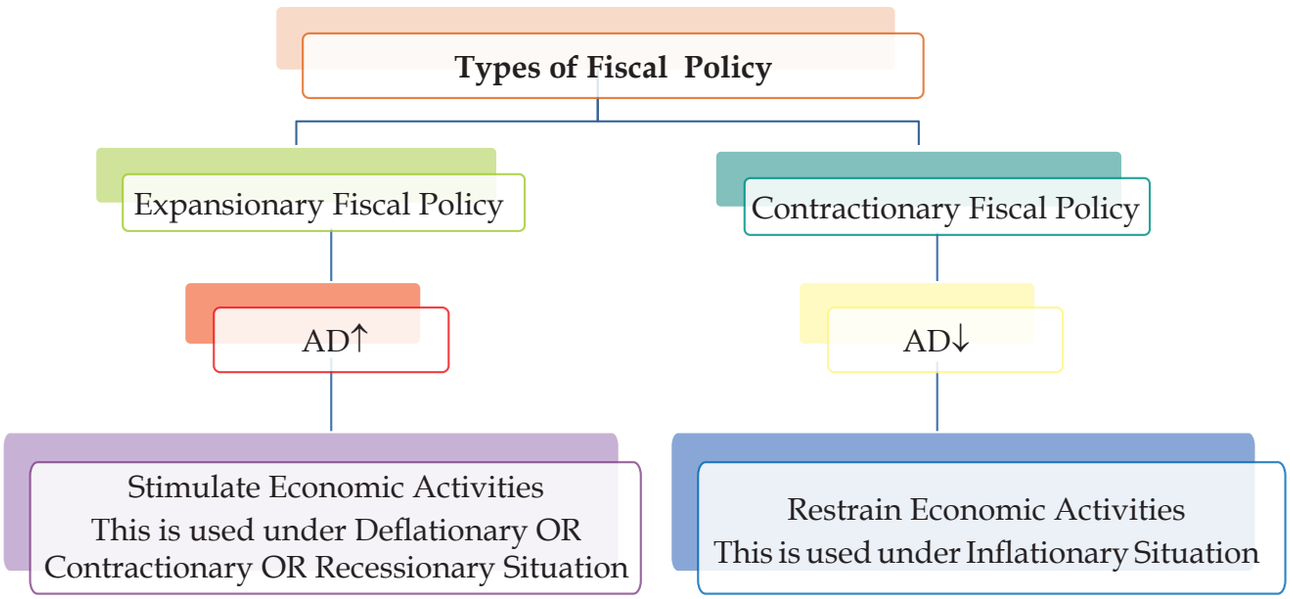
The importance as well as order of priority of these objectives may vary from country to country and from time to time.

For instance:

A. Stability and equality may be the priorities of developed nations,

B. Economic growth, employment and equity may get higher priority in developing countries

TYPES OF FISCAL POLICY



Question

1. Contractionary fiscal policy:

(*a*) Is resorted to when government expenditure is greater than the tax revenues of any particular year.

(*b*) Increase the aggregate demand to sustain the economy.

(*c*) To increase the disposable income of people through tax cuts and to enable greater demand.

(*d*) Is designed to restrain the levels of economic activity of the economy during an inflationary phase.

Answer

1. (*d*)

Expansionary Fiscal Policy

It is designed to stimulate the economy during the contractionary phase. It leads to an increase in aggregate expenditures through:

- decrease in taxes,
- increase in govt. Expenditure,
- Repayment of Public Debt

Thereby increasing aggregate demand in future. It leads to a larger government budget deficit or a smaller budget surplus.

Expansionary Fiscal Policy is resorted to close the contractionary gap.

During deflation or during a period of sluggish economic activity, Expansionary Fiscal Policy aims to compensate for the deficiency in effective demand by boosting aggregate spending.

Contractionary Fiscal Policy

It is designed to stimulate the economy during an inflationary phase. It leads to a decrease in aggregate expenditures through:

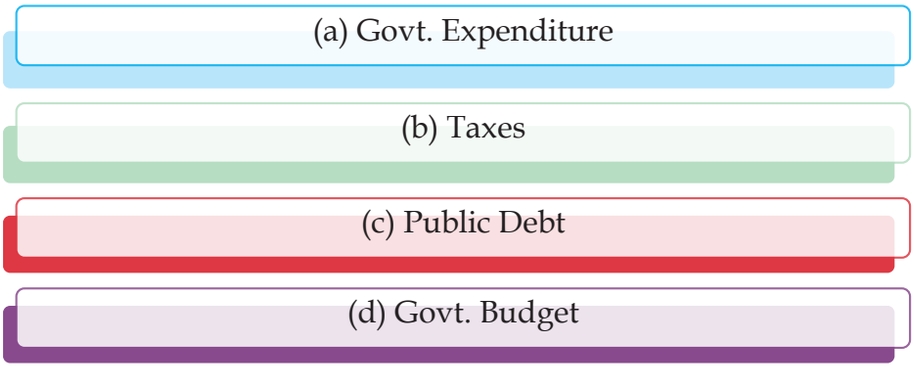
- Decrease in govt. expenditure
- Increase in taxes
- Repayment of public debt

Thereby decreasing aggregate demand in future. It leads to a smaller government budget deficit or a larger budget surplus.

Contractionary Fiscal Policy is resorted to close the inflationary gap.

If the state of the economy is such that its growth rate is extraordinarily high, causing inflation and asset bubbles, contractionary fiscal policy can be used to confine it to sustainable levels.

INSTRUMENTS OF FISCAL POLICY



Government (Public) Expenditure as an Instrument of Fiscal Policy

Fiscal policy relates to decisions that determine whether the govt's expenditure is more or less than what it receives.

A reduction or increase in govt. expenditure may result in significant variations in the country's total income.

As such, public expenditure can be instrumental in adjusting consumption and investment to achieve full employment.

Government (Public) Expenditure

Public expenditures are income-generating and include:

1. Current expenditures to meet the day-to-day running of the government
2. Capital expenditures – Government in investments made in the capital equipment and infrastructure, and
3. Transfer payments, i.e. government spending, which does not contribute to GDP because income is only transferred from one group of people to another without any direct contribution from the receivers.

How the Govt. Expenditure is Used?	
During Recession	**During Inflation**
It may initiate a fresh wave of public works, such as the construction of roads, irrigation facilities, ports, electrification of new areas, etc.	To reduce inflation and to bring down prices, Govt. reduces Expenditure → Reduced incomes → eliminate excess aggregate demand.

From Where will Govt. find resources to Increase its Expenditure During Recession?

If govt. increases taxes → it will be self-defeating as increased taxes will reduce the disposable incomes and therefore aggregate demand.

The govt. should go for a deficit budget, which may be financed either through borrowing or through monetisation (creation of additional money to finance expenditure).

The former runs the risk of crowding out private spending.

Additionally, a programme of public investment will strengthen the confidence of businessmen and their willingness to invest.

Primary employment in public works will induce employment, and the economy will be put on an expansion track.

Taxes as an Instrument of Fiscal Policy

Tax as an instrument of fiscal policy consists of changes in

- Government revenues or
- Rates of taxes

It is done for either encouraging or restricting private expenditures on consumption and investment.

Taxes determine the size of disposable income → which determines aggregate demand → and possible inflationary and deflationary gaps.

How Taxes are used?	
During Recession and Depression	**During Inflation**
Taxes are reduced to encourage private consumption and investment	New taxes can be levied, and rates of existing taxes are raised to reduce disposable incomes and to wipe off the surplus purchasing power. However, excessive taxation prevents new investments and thus the government. has to be cautious about it.

The extent of tax reduction and/or increase in government spending required depends on the size of the recessionary gap and the magnitude of the multiplier.

Question

1. An increase in personal income taxes:

(*a*) Reduces disposable incomes, leading to a fall in consumption spending and aggregate demand.

(*b*) Is desirable during inflation or when there are excessive levels of aggregate demand.

(*c*) Is to compensate for the deficiency in effective demand by boosting aggregate spending.

(*d*) Both (***a***) and (***b***) are correct

Answer

1. (*d*)

Public Debt as an Instrument of Fiscal Policy

Public Debt may be classified into 2 parts

- **Internal Debt:** When the Government Borrows from its own people in the country, it is internal debt.
- **External Debt:** When the government borrows from outside sources, the debt is external.

Internal Public Debt

- **Market Loans:** The government issues treasury bills and government securities of different denominations and durations, which are traded in debt markets.

For financing capital projects → long-term capital bonds are issued

For meeting short-term government expenditure → treasury bills are issued.

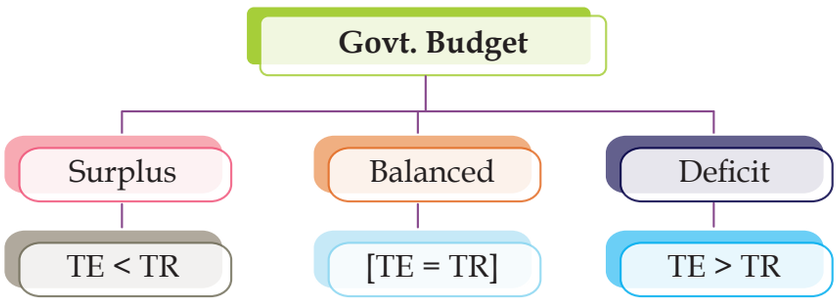
- **Small Savings:** They represent public borrowings, which are not negotiable and are not bought and sold in the market.

Eg: Schemes like National Savings Certificates, National Development Certificates, etc.

Borrowing from the public through the Sale of bonds and securities curtails the aggregate demand in the economy.

Repayments of Debt by governments increase the availability of money in the economy and increase aggregate demand.

Government Budget as an Instrument of Fiscal Policy



The net effect of a budget on aggregate demand depends on the government's budget balance.

1. Balanced budget: (Revenues = Expenditure)
   No net effect on aggregate demand since leakages (taxes) = injections (exp)
2. Budget surplus: (Revenues > Expenditure)
   It has a negative net effect on aggregate demand since leakages > injections. It reduces national debt.
3. Budget deficit: (Revenues < Expenditure)

It has a positive net effect on aggregate demand since leakages < injections. It adds to the national debt.

Questions

1. During recession, the fiscal policy of the government should be directed towards
   (*a*) Increasing the taxes and reducing the aggregate demand
   (*b*) Decreasing taxes to ensure higher disposable income
   (*c*) Increasing government expenditure and increasing taxes
   (*d*) None of the above
2. Which one of the following is an example of fiscal policy?
   (*a*) A tax cut aimed at increasing the disposable income and spending
   (*b*) A reduction in government expenditure to contain inflation
   (*c*) An increase in taxes and a decrease in government expenditure to control inflation
   (*d*) All the above
3. Which of the following policies is likely to shift an economy's aggregate demand curve to the right?
   (*a*) Increase in government spending
   (*b*) Decrease in taxes
   (*c*) A tax cut along with an increase in public expenditure
   (*d*) All the above

4. Which of the following are likely to occur when an economy is in an expansionary phase of a business cycle?

A. Rising unemployment rate
B. Falling unemployment rate
C. Rising inflation rate
D. Deflation
E. Falling or stagnant wages for workers
F. Increasing tax revenue
G. Falling tax revenue

(*a*) A, B and F are most likely to occur
(*b*) B, C and F are most likely to occur
(*c*) D, E and F are most likely to occur
(*d*) A, E and G are most likely to occur

5. Keynesian economists believe that

(*a*) Fiscal policy can have very powerful effects in altering aggregate demand, employment and output in an economy
(*b*) When the economy is operating at less than full employment levels and when there is a need to offer stimulus to demand fiscal policy is of great use
(*c*) Wages are flexible and, therefore, business fluctuations would be automatically adjusted
(*d*) Both (***a***) and (***b***) above

6. Which of the following may ensure a decrease in aggregate demand during inflation?

(*a*) Decrease in all types of government spending and/or an increase in taxes
(*b*) Increase in government spending and/or a decrease in taxes
(*c*) Decrease in government spending and/or a decrease in taxes
(*d*) All the above

7. A recession is characterised by

(*a*) Declining prices and rising employment
(*b*) Declining unemployment and rising prices
(*c*) Declining real income and rising unemployment
(*d*) Rising real income and rising prices

8. An expansionary fiscal policy, taking everything else constant, would in the short run have the effect of

(*a*) A relatively large increase in GDP and a smaller increase in price
(*b*) A relatively large increase in price, a relatively smaller increase in GDP
(*c*) Both GDP and price will be increasing in the same proportion
(*d*) Both GDP and price will be increasing in a smaller proportion

Answers

1. (*b*) **2.** (*d*) **3.** (*d*) **4.** (*b*) **5.** (*d*) **6.** (*a*) **7.** (*c*) **8.** (*a*)

FISCAL POLICY FOR LONG-RUN ECONOMIC GROWTH

The Demand-side policies unaccompanied by policies to stimulate aggregate supply cannot produce long-run economic growth.

- Fiscal policy influences economic growth through its effects on the incentives faced by individuals and firms.
- For example:
  - Fiscal policies such as those involving infrastructure spending generally have positive supply-side effects.
  - Government provision of public goods such as education, healthcare, etc., provides momentum for long-run economic growth through human capital formation. An increase in human capital makes physical capital more productive.
  - Taxes can have either a positive or a negative impact on economic growth, depending on whether they encourage or discourage saving and investment.
  - A well-designed tax policy that rewards innovation and entrepreneurship, without discouraging incentives, will promote private businesses that wish to invest and thereby help the economy to grow.
  - For example: An increase in corporate taxes to raise extra revenue may have adverse consequences on incentives and output.

FISCAL POLICY FOR REDUCTION IN INEQUALITIES OF INCOME AND WEALTH

The distribution of income in society is influenced by fiscal policy both directly (by affecting current income) and indirectly. (by affecting potential for future earnings).

A few measures as to how government expenditure and taxes can be manipulated to achieve the desired redistribution of income.

- A progressive direct tax system, like More Tax on the rich.
- Indirect taxes can be differential, like More Tax on Luxury goods, Less tax or light tax on Necessities.

A carefully planned policy of public expenditure helps in redistributing income from the rich to the poorer sections of society. Spending programmes targeted on welfare measures for the disadvantaged, such as:

- Poverty alleviation programmes
- Free or subsidised medical care, education
- Infrastructure provision on a selective basis
- Subsidised production of products of mass consumption
- Public production and/or grant of subsidies to ensure a sufficient supply of essential goods, and
- Strengthening human capital for enhancing employability, etc.

LIMITATIONS OF FISCAL POLICY

1. Different types of Lags or Delay, or Late
   (i) **Recognition Lag:** There may be a delay on the part of the govt. to recognise the need for a fiscal policy change.

(ii) **Decision Lag:** There may be Delays in deciding on the most appropriate policy.

(iii) **Implementation Lag:** There may be delays in bringing in legislation and implementing it.

(iv) **Impact Lag:** This lag occurs when the Outcomes/Result/ Impact of a policy are not visible for some time.

Question

1. Which of the following would illustrate a recognition lag?

(*a*) The time required to identify the appropriate policy.

(*b*) The time required to identify to pass legislation.

(*c*) The time required to identify the need for a policy change.

(*d*) The time required to establish the outcomes of fiscal policy.

Answer

1. (*c*)

Limitations

2. Badly timed fiscal policy changes – It is highly possible that an expansionary policy is initiated when the economy is already on a path of recovery and vice versa.

3. There are Difficulties in instantaneously changing governments' spending and taxation policies.

4. It is practically difficult to reduce government spending on various items such as defence and social security, as well as on huge capital projects which are already midway.

5. Public works cannot be adjusted easily because many huge projects, such as highways and dams, have a long gestation period. Besides, some urgent public projects cannot be postponed due to the need to cut government expenditure to correct fluctuations in the economy.

6. Some economists think that Certain fiscal measures cause disincentives. For eg, an increase in profits tax may adversely affect the incentives of firms to invest, and an increase in social security benefits may adversely affect incentives to work and save.

7. Deficit financing increases the purchasing power of people. The production of Goods and services in underdeveloped countries may not catch up simultaneously, resulting in prices spiralling beyond control.

8. An increase in government borrowing creates a perpetual burden on even future generations as debts have to be repaid.

9. Crowding out.

Crowding Out

Recessionary Situation

During recession, the government may use an expansionary fiscal policy by increasing government expenditure.

The government may opt to increase its spending by borrowing from the credit market, and this substantial government borrowing in demand for loans increases the credit market, pushing the interest rates up.

Higher interest rates slow down business investment expenditure and consumption expenditure, which are interest-sensitive, and will be reduced.

Fiscal policy becomes ineffective as the decline in private spending partially or completely offsets the expansion in demand resulting from an increase in government expenditure.

So, an increase in the size of government spending during recessions will 'crowd out' private spending in an economy.

Questions

1. Read the following statements:

I. When revenue is higher than spending, i.e., the government budget iş in surplus.

II. Other things constant, a fiscal expansion will raise interest rates and "crowd out" some private investment.

III. During inflation, new taxes can be levied, and the rates of existing taxes are raised to reduce disposable incomes.

IV. Classical economists advocated contractionary fiscal policy to solve the problem of inflation, as the above statements.

(*a*) I and II are correct (*b*) I, II and III are correct

(*c*) Only III is correct (*d*) All are correct

2. Which statement(s) is (are) correct about crowding out?

I. A decline in private spending may be partially or completely offset by the expansion of demand resulting from an increase in government expenditure.

II. Crowding out effect is the negative effect fiscal policy may generate when money from the private sector is 'crowded out' into the public sector.

III. When government spending by the government in an economy increases, government spending would be crowded out.

IV. Private investments, especially the ones which are interest-sensitive, will be reduced if interest rates rise due to increased spending by the government.

(*a*) I and III only (*b*) I, II and III

(*c*) I, II and IV (*d*) III only

Answers

1. (*b*) **2.** (*c*)

08

MONEY MARKET

CONTENT OF THE CHAPTER

Unit-1: The Concept of Money Demand: Important Theories
Unit-2: The Concept of Money Supply
Unit-3: Monetary Policy

UNIT-1: THE CONCEPT OF MONEY DEMAND: IMPORTANT THEORIES





Many different things have been used as money over the years like cowry shells, barley, peppercorns, gold and silver.







MONEY CAN BE ANYTHING THAT CAN SERVE THE FOLLOWING THREE FUNCTIONS

1. **Store of value:** Save now, use later
2. **Unit of Account:** Money provides common base for prices
3. **Medium of Exchange:** Money can be used to buy-sell goods and services from one another.

FIAT MONEY

Fiat money is materially worthless but has value simply because a nation collectively agrees to ascribe a value to it.

Fiat Money is also known as token money.

In short, money works as people believe it will.

'There is no unique definition of 'money', either as a concept in economic theory **or** as measured in practice.

1. Money can be defined for policy purposes as the set of **liquid financial assets,** the variation in the stock of which could impact on aggregate economic activity.
2. As a statistical concept, money could include certain **liquid liabilities** of a particular set of financial intermediaries or other issuers'. (Reserve Bank of India Manual on Financial and Banking Statistics, 2007)

CHARACTERISTICS OF MONEY

1. Generally acceptable
2. Durable or long lasting
3. Effortlessly recognizable
4. Difficult to counterfeit i.e., not easily reproducible by people
5. Relatively scarce, but has elasticity of supply
6. Portable or easily transported
7. Possessing uniformity
8. Divisible into smaller parts in usable quantities or fractions without losing value

DEMAND FOR MONEY

- Money demand is inversely related with interest.
- Price level is directly proportional to money demand.
- Income is directly proportional to money demand.
- Innovation indirectly proportional to money demand.
- Opportunity cost of Holding Money is Interest.

1. It refers to the desire of people to hold/keep money/Cash.
2. Demand for money is derived demand, it is demanded for its purchasing power.
3. Demand for money has an important role in determination of interest, prices and income in the economy.
4. Money demand related to interest rate.
5. Price level is directly proportional to money demand.
6. Income is directly proportional to money demand.
7. Innovation is inversely related to money demand.

Question

1. Higher the _____, higher would be _____ of holding cash and lower will be the _____.

(*a*) Demand for money, opportunity cost, interest rate

(*b*) Price level, opportunity cost, interest rate

(*c*) Real income, opportunity cost, demand for money

(*d*) Interest rate, opportunity cost, demand for money

Answer

1. (*d*)

THEORIES OF DEMAND FOR MONEY

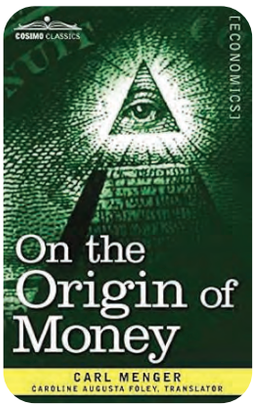
Why People Keep Cash?

OR

Why People Demand Money?

- (i) Classical Approach: Quantity Theory of Money
- (ii) Cambridge Approach
- (iii) Keynesian Theory of Demand for Money
- (iv) Inventory Approach to Transaction Balances
- (v) Friedman's Restatement of Quantity Theory
- (vi) Demand for Money as Behaviour towards Risk

CLASSICAL APPROACH: QUANTITY THEORY OF MONEY (QTM)





- This theory was Given by **Irving Fisher** in his book 'The Purchasing Power of Money' published in 1911.

- As per QTM, **money in circulation (M)** and **price level (P)** are directly **related** to each other.
- It means, changes in general level of commodity prices or changes in the value or purchasing power of money are determined first and foremost by changes in the quantity of money in circulation.
- QTM is also known as. **'equation of exchange'** or **'transaction approach'**

MV = PT

- Where, M = total amount of money in circulation in economy
  V = transactions velocity of circulation i.e. no. of times money changes hands
  P = average price level (P = MV/T);
  PT = Total demand of money
  T = the total number of transactions;
  MV = Total supply of money

Later, Fisher **extended the equation** of exchange to **include demand (bank) deposits (M') and their velocity (V')**

New Expanded Form: MV + M'V' = PT

Where, M' = the total quantity of credit money

V' = velocity of circulation of credit money

Assuming full employment prevails – **T, V, V' remains constant**

- As per QTM, people would **hold money** in a quantity **proportional to total transactions** irrespective **of interest rate.**
- It means More number of Transactions leads to More Demand of Money.

Questions

1. The quantity theory of money holds that:

(*a*) changes in the general level of commodity prices are caused by changes in the quantity of money.

(*b*) there is strong relationship between money and price level and the quantity of money is the main determinant of the price.

(*c*) changes in the value of money or purchasing power of money are determined first and foremost by changes in the quantity of money in circulation.

(*d*) All the above

2. Real Money is:

(*a*) Nominal money adjusted to the price level.

(*b*) Real National Income.

(*c*) Money demanded at given rate of interest.

(*d*) Nominal GNP divided by price level.

Answers

1. (*d*) **2.** (*a*)

CAMBRIDGE APPROACH: CASH BALANCE APPROACH/NEO-CLASSICAL THEORY

- In the early 1900s, Cambridge economists Alfred Marshall, AC Pigou, DH Robertson and JM Keynes made a fundamentally different approach to QTM.
- It is also knowns as **Cash Balance Approach** or **Neo-Classical Theory**
- **Money increases utility** in **two ways:**
  1. **Possibility of Split-up of sale and purchase** between two different points of time (it is transaction motive).
  2. **Hedge against uncertainty.** (money's role as a temporary store of wealth).
- Since **sale and purchase of commodities do not take place simultaneously,** people need **'temporary abode'** of purchasing power as hedge against uncertainty. So, demand for money also involves precautionary motive.
- **How much money will be demanded as per Cambridge Approach?**

  It depends partly on income and partly on other factors like wealth and interest rates.

$$M_d = k\,PY$$

Where, Md = is the demand for money balances,
Y = total quantity of output produced in an economy or real national income,
P = average price level of currently produced goods and services,
PY = nominal income,
k = Cambridge k = **proportion of nominal income (PY) that people want to hold as cash**

The equation above explains that demand for money (M_d) equals k proportion of the total money income.

$$M_d = k.PY$$

Questions

1. What is the term Y representing in expression M_d = kPY? **(May 2025)**

(*a*) Real National Income (*b*) Price Level
(*c*) Monopoly (*d*) Interest Rate

2. The Cambridge approach to quantity theory is also known as:

(*a*) Cash balance approach (*b*) Fisher's theory of money
(*c*) Classical approach (*d*) Keynesian Approach

3. Fisher's approach and the Cambridge approach to demand for money consider:

(*a*) Money's role in acting as a store of value and therefore, demand for money is for storing value temporarily.

(*b*) Money as a means of exchange and therefore demand for money is termed as for liquidity preference.

(*c*) Money as a means of transactions and therefore, demand for money is only transaction demand for money.

(*d*) None of the above

Answers

1. (*a*) **2.** (*a*) **3.** (*c*)

KEYNESIAN THEORY OF DEMAND FOR MONEY: LIQUIDITY PREFERENCE THEORY

According to Keynes' Liquidity Preference Theory', people hold money (M) in cash for three motives:

1. **Transactions motive,**
2. **Precautionary motive, and**
3. **Speculative motive**

Transactions Motive

1. This motive is related with the need for cash for **current transactions** for **personal** and **business** exchange (income motive and business or trade motive).
2. Money is required to **bridge the time gap** between receipt of **income** and planned **expenditures.**
3. Keynes did not consider the transaction balance as being affected by interest rates.
4. Aggregate transaction demand for money is a function of National income.

   Transaction demand for money is **directly related** to level of income

   $$Lr = kY$$

   Where,

   Lr, is the transactions demand for money – it means how much money you want to hold for transaction purpose.

   k is the ratio of earnings which is kept for transactions purpose.

   Y is the earnings.

Precautionary Motive

Individuals as well as businesses keep a portion of their income to **finance unanticipated expenditures** which may occur due to **unforeseen and unpredictable contingencies/Emergency.** **The demand for money under precautionary motive depends on the size of income, prevailing economic and political conditions, personal characteristics like pessimism/ optimism, farsightedness etc.**

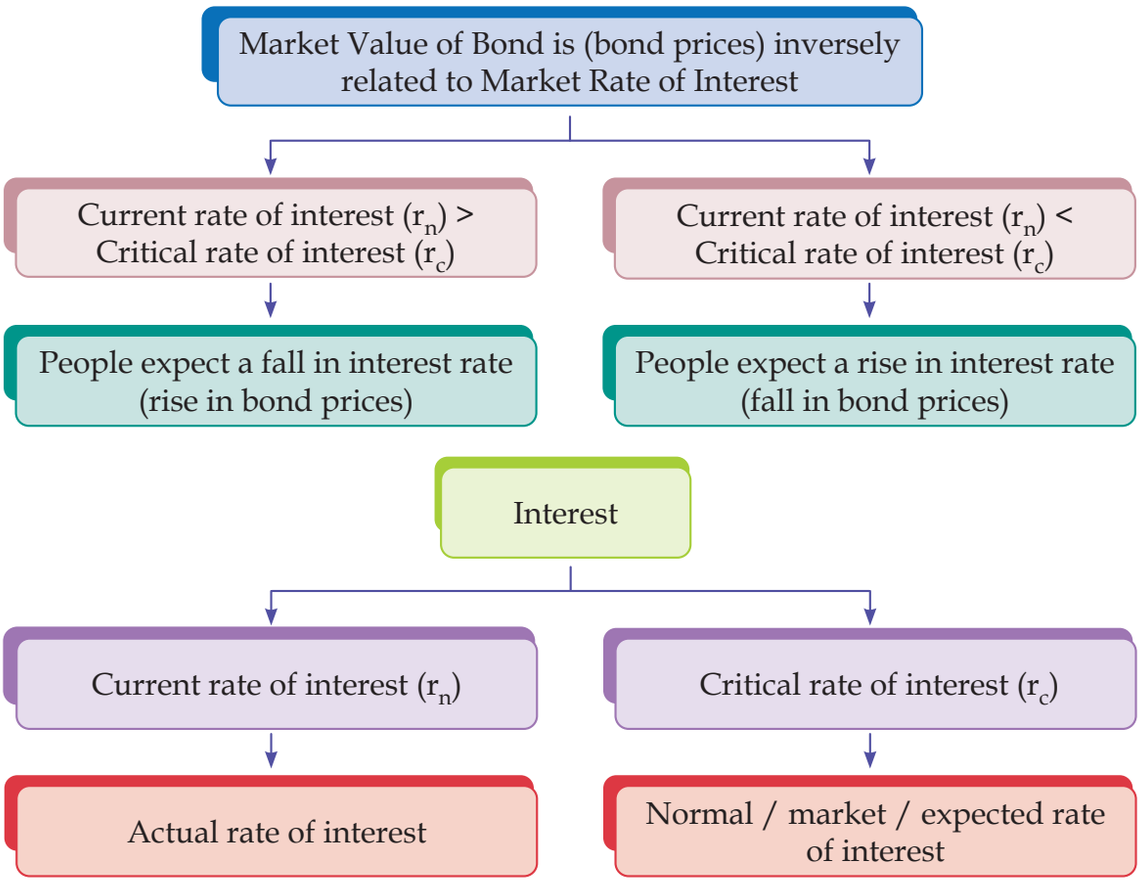
Keynes regarded the precautionary balances as income elastic and not very sensitive to rate of interest **(interest inelastic)**.

Speculative Motive

The speculative motive reflects people's desire to hold cash in order to be equipped to **exploit** any **attractive investment opportunity.** People demand to hold money balances to **take advantage of the future changes in the rate of interest,** which is the same as future changes in bond prices.

Keynes assumed that expected **return on money is zero,** while expected **returns on bonds** are **of two types,** namely:

1. **interest payment and**
2. **expected rate of capital gain.**



If wealth-holders consider that the current rate of interest is high compared to the 'normal or critical rate of interest', they expect a fall in the interest rate (rise in bond prices). At the high current rate of interest, they will convert their cash balances into bonds because:

(i) they can earn high rate of return on bonds.

(ii) they expect capital gains resulting from a rise in bond prices consequent upon an expected fall in the market rate of interest in future.

If the wealth-holders consider the current interest rate as low, compared to the 'normal or critical rate of interest', i.e., if they expect the rate of interest to rise in future (fall in bond prices), they would have an incentive to hold their wealth in the form of liquid cash rather than bonds because:

(i) the loss suffered by way of interest income forgone is small,

(ii) they can avoid the capital losses that would result from the anticipated increase in interest rates, and

(iii) the return on money balances will be greater than the return on alternative assets.

Question

1. According to Keynes, if the current interest rate is high:

(*a*) people will demand more money because the capital gain on bonds would be less than return on money.

(*b*) people will expect the interest rate to rise and bond price to fall in the future.

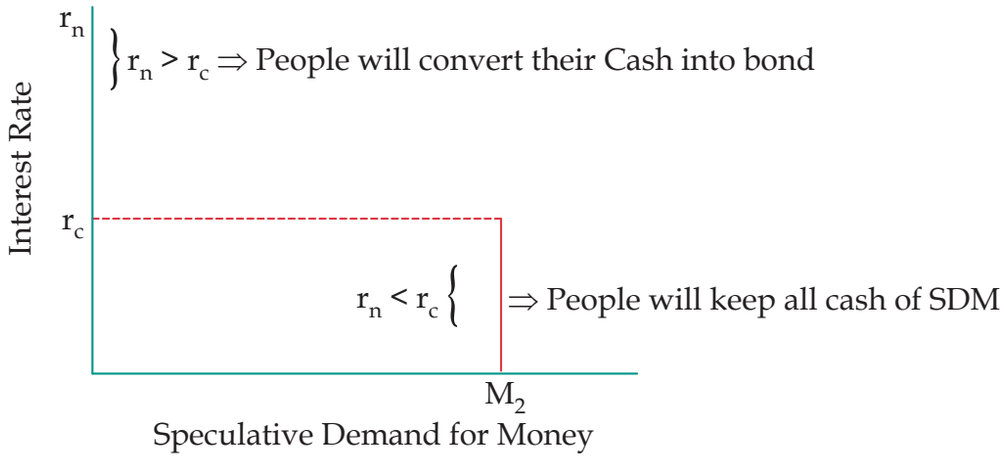
(*c*) people will expect the interest rate to fall and bond price to rise in the future.

(*d*) Either (*a*) or (*b*) will happen

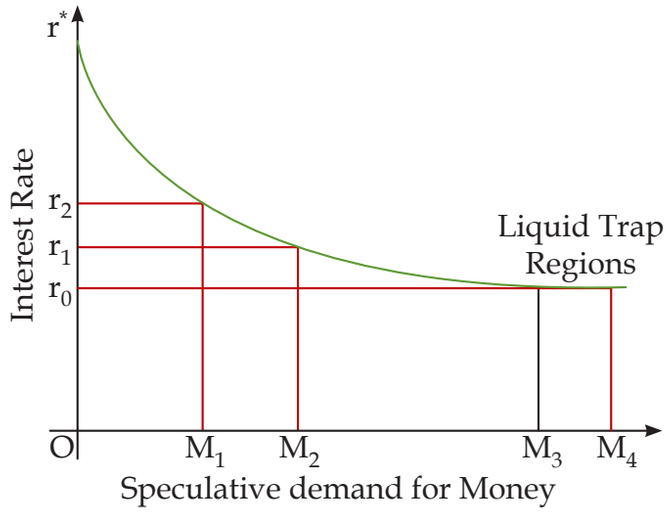
Answer

1. (*c*)

Individual's Speculative Demand for Money



Aggregate Speculative Demand for Money



Liquidity Trap

- When **interest rates fall to very low levels,** the **expectation** is that since the interest rate is very low it **cannot go any lower** and that in all possibility it will **move upwards.**
- When **interest rates rise,** the **bond prices will fall** (interest rates and bond prices are inversely related).
- To hold **bonds at this low interest** rate is to take **almost certain risk** of a **capital loss** (as the interest rate rises and bond prices fall).
- Thus,
  - desire to **hold bonds** is **very low** and **approaches zero,** and
  - demand to **hold money** in liquid form **approaches infinity.**
- The **speculative demand** becomes **perfectly elastic** with respect to interest rate and the speculative money demand curve becomes **parallel to the X axis.**

- This situation is called a **'Liquidity trap'.**
- Liquidity trap is a situation when expansionary monetary policy (increase in money supply) does not stimulate economic growth and monetary policy becomes ineffective/ powerless.

Questions

1. Liquidity trap occurs when: **(May 2025)**

(*a*) Interest rates are high and people prefer bonds over cash balances.

(*b*) Interest rates are near zero, and people prefer holding cash over bonds.

(*c*) Inflation rates are high, reducing purchasing power of money balances.

(*d*) Central banks increase CRR drastically.

2. The precautionary money balances people want to hold:

(*a*) as income elastic and not very sensitive to rate of interest.

(*b*) as income inelastic and very sensitive to rate of interest.

(*c*) are determined primarily by the level of transactions they expect to make in the future.

(*d*) are determined primarily by the current level of transactions.

3. Speculative demand for money:

(*a*) is not determined by interest rates. (*b*) is positively related to interest rates.

(*c*) is negatively related to interest rates. (*d*) is determined by general price level.

4. When the speculative demand for money becomes perfectly elastic with respect to the interest rate, making the speculative money demand curve parallel to X-axis, the situation is called a/an_____. **(Sept. 2025)**

(*a*) Inflationary Gap (*b*) Liquidity Trap

(*c*) Money Expansion (*d*) Deflationary Spiral

Answers

1. (*b*) **2.** (*a*) **3.** (*c*) **4.** (*b*)

INVENTORY APPROACH TO TRANSACTION BALANCES

- This theory is Given by Baumol (1952) and Tobin (1956) **(Inventory Theoretic Approach),** in which money or **'real cash balance'** was essentially viewed as **an inventory held for transaction purposes.**
- Inventory models assume that there are two media for storing value:
  1. Money – **Cash**
  2. an interest-bearing alternative financial asset – **Bond**
- There is **fixed cost of making transfers** between money and alternative financial assets e.g. **broker charges**
- Baumol assumes that individual hold money for transaction purpose.
- People also incur some cost when they hold the inventory of money i.e. opportunity cost of holding money like interest rate could be earned.
- Bonds and shares give high return but they are risky and saving deposits are quite safe/risk free but gives low return.

- As per Baumol and Tobin, transaction demand for money depends on interest.
- As per Baumol, individuals have to keep optimum amount of inventory of money for their day-to-day transaction purposes.

Baumol has proved that the average amount of cash withdrawal which minimizes cost is given by:

$$C = \frac{\sqrt{2bY}}{r}$$

C = cash withdrawals

b = brokerage fee

Y = income

r = rate of interest

This means that the average amount of cash withdrawal which minimizes cost is the square root of the two times broker's fee multiplied by the size of an individual's income and divided by the interest rate. This is also called Square Root Rule.

- The level of inventory holding (holding money in cash):

  is **DIRECTLY RELATED** to

  1. **Income** of person (Y)
  2. Price Level
  3. **Cost of making transfer** between money and bonds

The level of inventory holding (Holding money in cash) is INDIRECTLY RELATED to:

- **Carrying Cost** (interest income foregone by holding money)
- **Number of times bond transaction are made**

FRIEDMAN'S RESTATEMENT OF QUANTITY THEORY

Milton Friedman (1956) **extended Keynes' speculative money demand** within the framework of **asset price theory.**

He treats the demand for money as nothing more than the demand for capital assets.

Demand for money is affected by-

- **Permanent income** (present expected value of all future income)
- **Relative returns on assets.** (which incorporate risk)

Friedman's four determinants of the demand for money are:

1. **Total wealth = Permanent Income/discount rate**

   Where, discount rate is average return on five asset classes in money, bonds, equity, physical capital and human capital.
2. Demand for money is Directly related to the **Price Level**.
3. Demand for money Rises if **opportunity costs** of money holdings (i.e. returns on bonds and stock) decline.
4. A positive rate of **Inflation reduces real value of money, thereby increasing the opportunity cost of holding money.**

Questions

1. Which of the following is NOT one of the four determinants of the Friedman's demand for money? **(May 2025)**

(*a*) Nominal Demand for money is a function of total wealth.

(*b*) It is positively related to price level P, if price level rises.

(*c*) Nominal demand for money falls if the opportunity costs of money holding declines.

(*d*) Nominal demand for money is influenced by inflation.

2. According to Friedman, how does the price level, as a determinant, affect the nominal demand for money? **(Sept. 2025)**

(*a*) It has no effect.

(*b*) It is negatively related to the demand for money.

(*c*) A rise in the price level increases the demand for money and vice versa.

(*d*) A rise in the price level decreases the demand for money.

Answers

1. (*c*) **2.** (*c*)

DEMAND FOR MONEY AS BEHAVIOR TOWARDS RISK

Risky $\uparrow \rightarrow$ Bond, Share $\rightarrow$ Risk Seeker/lover

Risky $\downarrow \rightarrow$ Risk Seeker $\rightarrow$ FD

Given by James Tobin in his article, **'Liquidity Preference as Behaviour towards Risk'** (1958).

According to Tobin, an investor is faced with a problem of what proportion of his portfolio of his financial assets he should keep in ready money (which earns no interest) and in form of investment (which earns interest).

According to Tobin, when individuals are faced with various safe and risky assets, they diversify their portfolio by holding a balanced combination of safe and risky assets.

According to Tobin, an individual's behaviour shows risk aversion, which means they prefer less risk to more risk at a given rate of return.

Also Tobin derived his liquidity preference function showing inverse relationship between interest rate demand for money. He gave downward sloping aggregate liquidity preference curve.

Just as Keynes theory, Tobin's theory implies that the **demand for money** as a store of wealth **depends negatively on the interest rate.**

Questions

1. The inventory-theoretic approach to the transactions demand for money:

(*a*) Explains the negative relationship between money demand and the interest rate.

(*b*) Between explains the positive relationship money demand and the interest rate.

(*c*) Explains the positive relationship between money demand and general price level.

(*d*) Explains the nature of expectations of people with respect to interest rates and bond prices.

2. According to Baumol and Tobin's approach to demand for money, the optimal average money holding is:

(*a*) A positive function of income Y and the price level P.

(*b*) A positive function of transactions costs c.

(*c*) A negative function of the nominal interest rate i.

(*d*) All the above

3. _____ considered demand for money is as an application of a more general theory of demand for capital assets.

(*a*) Baumol (*b*) James Tobin

(*c*) J. M. Keynes (*d*) Milton Friedman

4. The nominal demand for money rises if

(*a*) The opportunity costs of money holdings - i.e. bonds and stock returns, r_B and r_E respectively - decline and vice versa.

(*b*) The opportunity costs of money holdings – i.e. bonds and stock returns, r_B and r_E, respectively- rises and vice versa.

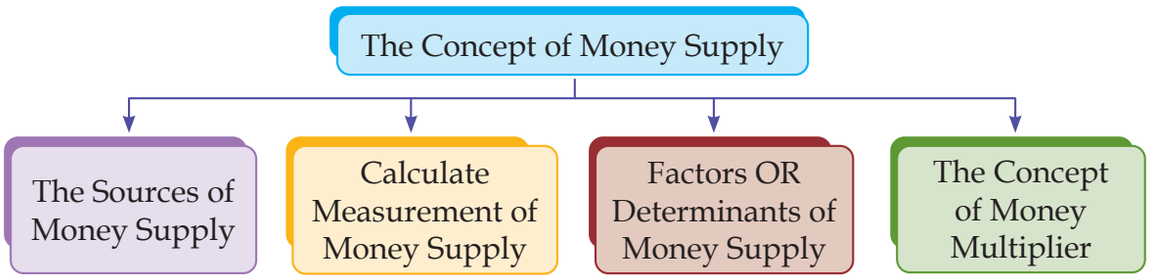
(*c*) The opportunity costs of money holdings – i.e. bonds and stock returns, r_B and r_E, respectively remain constant.

(*d*) Both (*b*) and (*c*) above

Answers

1. (*a*) **2.** (*d*) **3.** (*d*) **4.** (*a*)

UNIT-2: THE CONCEPT OF MONEY SUPPLY



TYPES OF BANK ACCOUNTS

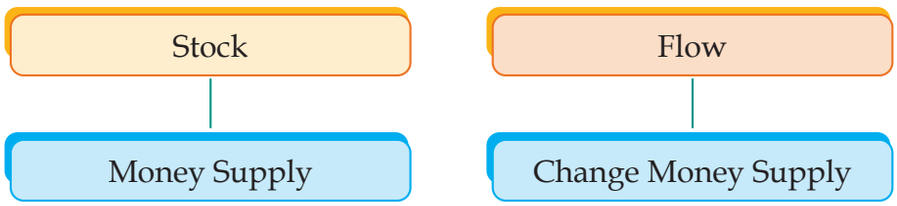
1. Saving bank account
2. Current Account
3. Recurring Deposit Account
4. Fixed Deposit Account

MONEY SUPPLY

- The term money supply denotes the **total quantity of money available with public at a particular point of time.**
- **'Public'** includes **all economic units** (households, firms and institutions) **except the producers of money** (i.e., the government and the banking system).

Where,

- **Government =** Central Government and all State governments and local bodies.
- **Banking system** means **RBI** and all **banks that accept demand deposits** (i.e. deposits from which money can be withdrawn by cheque mainly CASA deposits).
- Thus, 'supply of money' **EXCLUDES**
  - **interbank deposits** and
  - money held by **government** and
  - money held by **banking system (RBI).**



Two things about any measure of money supply:

1. The supply of money is a **stock variable** and **change in the stock of money** is a **flow variable.** The stock of money always refers to the stock of **money available to the 'public'** as a means of payments and store of value.
2. This is **always smaller than the total stock of money that really exists** in an economy.

RATIONALE OF MEASURING MONEY SUPPLY

Empirical analysis of money supply is important because:

1. Facilitates **analysis of monetary developments** to provide an understanding of causes of money growth.
2. Provides a **framework** to evaluate whether stock of money in economy is consistent with-**standards for price stability.** It helps central banks in **making monetary policy**.

Sources of Money Supply

Central Banks	Banking System
High powered money or Monetary Base	Credit Money
It is issued by monetary authorities, which is the source of all other forms of money. The currency issued by the central bank is 'fiat money and is backed by supporting reserves and its value is guaranteed by the government.	Banks create money supply in the process of borrowing and lending transactions with the public.
High powered money + Credit Money = Total money stock of a country	

- The concept of money has experienced **evolution** from **Commodity to Metallic Currency to Paper Currency** to Digital **Currency.**
- Advancement in technology has made it possible for the development of new form of money viz. **Central Bank Digital Currencies (CBDCs).**
- RBI has also been exploring the pros and cons of introduction of CBDCs and is currently engaged in working towards a phased implementation strategy, for the issuance of its own CBDC [Digital Rupee (e), with minimal or no disruption to the financial system.
- Reserve Bank broadly defines **"CBDC" as the legal tender issued by a central bank in a digital form.** It is akin/equal to **sovereign paper currency** but takes a **different form, exchangeable at par with existing currency** and shall be accepted as a medium of payment, legal tender and a safe store of value. CBDCs would appear as liability on a central bank's balance sheet.
- Also, **Crypto currencies** face significant **legislative uncertainties** and are **not legally recognized** in **India as currency.** Hence, these are not categorized as money. In 2018, RBI had barred banks other financial entities from dealing with **virtual cryptocurrencies.**

Question

1. Which of the following statements are true in relation to the Crypto currency? **(MAY 2025)**

Statement-I: These have achieved significant legislative recognition.

Statement-II: These are not legally recognized in India as currency.

Statement-III: These are not categorized as money.

Statement-IV: In India, it serves as a legitimate form of payment for goods and services in the same way as traditional money does.

(*a*) Statement I and IV (*b*) Statement I and II

(*c*) Statement I and III (*d*) Statement II and III

Answer

1. (*d*)

MEASUREMENT OF MONEY SUPPLY

Since July 1935, RBI has been compiling and disseminating monetary statistics. Till 1967-68, RBI published a single 'narrow measure of money supply' Old M_1 = Currency (+) demand deposits held by the public.

From 1967-68, a 'broader' measure of money supply, called **'Aggregate Monetary Resources' (AMR)** was additionally published by RBI.

From April 1977, following the recommendations of the Second Working Group on Money Supply (SWG), RBI has been publishing data on four alternative measures of money supply denoted by M_1, M_2, M_3 and M_4 besides reserve money (M_0).

Reserve money **(M_0)** is also known as:

Central Bank money, base money or, high-powered money

Reserve Money determines

- Level of liquidity and
- Price level in economy and, thus, its management is of this crucial importance to Stabilize the economy

	Currency in Circulation
+	Banker's Deposits with RBI → CRR
+	Other deposits with the RBI → OD
	Reserve Money (M_0)
	Notes in Circulation
+	Circulation of Rupee Coin
+	Circulation of Small Coins
–	Cash on Hand with Banks
	Currency with Public

M_1 = Currency notes and coins with the people + demand deposits with the banking (Current and Saving deposit accounts) + other deposits with the RBI.

M_2 = M_1 + Savings deposits with post office savings banks

M_3 = M_1 + time deposits with the banking system

M_4 = M_3 + total deposits with the Post office Savings Organization (excluding National Savings Certificates).

Old M_1 = CC = DD

New M_1 = CC + DD + DD

Illustrations

Q. Calculation currency with the Public from the following data (₹ Crore)

1.1	Notes in Circulation	2496611
1.2	Circulation of Rupee Coin	25572
1.3	Circulation of Small Coins	743
1.4	Cash on Hand with Banks	98305

Ans. Currency with the Public 1.1 + 1.2 + 1.3 – 1.4 = (2496611 + 25572 + 743) – 98305 = 2424621

Q. Calculation Narrow Money (M1) from the following data

Currency with public (CC)	₹90000 Crore
Demand Deposits with Banking System (DD)	₹200000 Crore
Time Deposits with Banking System	₹220000 Crore
Other Deposits with RBI (OD)	₹280000 Crore
Saving Deposits of Post office saving banks	₹60000 Crore

Ans. M_1 = Currency with Public + Demand Deposits with Banking System + Other Deposits with the RBI

90000 crore + 200000 crore + 280000 crore = 570000 crore

Q. Calculation M_2 from the following data

	(₹Crore)
Notes in Circulation	2420964
Circulation of Rupee Coin	25572
Circulation of Small Coins	743
Post Office Saving Bank Deposits	141786
Cash on Hand with Banks	97563
Deposit Money of the Public	1776199
Demand Deposits with Banks	1737692
'Other' Deposits with Reserve Bank	38507
Total Post Office Deposits	14896
Time Deposits with Banks	178694

Ans. $M_2 = M_1$ + Post Office Saving Bank Deposits

Where M_1 = (Notes in Circulation + Circulation of Rupee Coin + Circulation of Small Coins – Cash on Hand with Banks) + Deposit Money of the Public

= (2420964 + 25572 + 743 – 97563) + 1776199 = 4125915

$M_2 = M_1$ + Post Office Saving bank Deposits = 4125915 + 141786 = 4267701

Questions

1. Reserve money is also known as:

(*a*) Central bank money (*b*) Base money

(*c*) High powered money (*d*) All the above

2. Which of following is NOT included in M_1? **(May 2025)**

(*a*) Currency with the public (*b*) Demand deposits with banks

(*c*) Time (term) deposits with banks (*d*) Other deposit with RBI

3. Reserve Money is composed of:

(*a*) Currency in circulation + demand deposits of banks (Current and Saving accounts) + Other deposits with the RBI

(*b*) Currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI

(*c*) Currency in circulation + demand deposits of banks + Other deposits with the RBI

(*d*) Currency in circulation + demand and time deposits of banks + Other deposits with the RBI

4. M_1 is the sum of:

(*a*) currency and coins with the people demand deposits of banks (Current and Saving accounts) other deposits of the RBI.

(*b*) currency and coins with the people + demand and time deposits of banks (Current and Saving accounts) + other deposits of the RBI.

(*c*) currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI.

(*d*) None of the above

5. Choose the correct statement from the following:

(*a*) Money is deemed as something held by the public and therefore only currency held by the public is included in money supply.

(*b*) Money is deemed as something held by the public and therefore inter-bank deposits are included in money supply.

(*c*) Since inter-bank deposits are not held by the public, therefore inter-bank deposits are excluded from the measure of money supply.

(*d*) Both (*a*) and (*c*) above

6. The primary source of money supply in all countries is:

(*a*) The Reserve Bank of India

(*b*) The Central bank of the country

(*c*) The Bank of England

(*d*) The Federal Reserve

7. Calculate currency with public from following Data (₹ in lakh)? **(May 2025)**

Notes in Circulation	2,59,121
Coins in Circulation	23,345
Cashion hands with Banks	19,009
Coins on hands with Banks	909

(*a*) ₹ 3,02,384

(*b*) ₹ 2,62,548

(*c*) ₹ 2,53,876

(*d*) ₹ 2,15,858

Answers

1. (*d*) **2.** (*c*) **3.** (*b*) **4.** (*a*) **5.** (*c*) **6.** (*b*) **7.** (*b*)







Question

1. Under the 'minimum reserve system' the central bank is:

(*a*) empowered to issue currency to any extent by keeping an equivalent reserve of gold and foreign securities.

(*b*) empowered to issue currency to any extent by keeping only a certain minimum reserve of gold and foreign securities.

(*c*) empowered to issue currency in proportion to the reserve money by keeping only a minimum reserve of gold and foreign securities.

(*d*) empowered to issue currency to any extent by keeping a reserve of gold and foreign securities to the extent of 350 crores.

Answer

1. (*b*)

There are 2 alternate theories in respect of determination of money supply.

1. **First view** money supply is determined exogenously by the central bank.
2. **The second view,** holds that the money supply is determined endogenously by changes in the economic activities.

The current practice is to explain the determinants of money supply based on 'money multiplier approach'.

Question

1. Reserve Money is composed of:
   (*a*) Currency in circulation + demand deposits of banks (Current and Saving accounts) + Other deposits with the RBI
   (*b*) Currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI
   (*c*) Currency in circulation + demand deposits of banks + Other deposits with the RBI
   (*d*) Currency in circulation + demand and time deposits of banks + Other deposits with the RBI

Answer

1. (*b*)

$$c = \text{currency ratio} = \text{currency} - \text{deposit ratio} = \frac{\text{currency}}{\text{deposits}} = \frac{C}{D}$$

$$r = \text{required reserve ratio} = \frac{\text{required reserves}}{\text{deposits}} = \frac{RR}{D} = \frac{CRR + SLR}{D}$$

$$e = \text{excess reserve ratio} = \frac{\text{excess reserves}}{\text{deposits}} = \frac{TR - RR}{D}$$

$r = 10\% = 0.10$
Currency = 400 billion
Deposits = 800 billion
Excess Reserves = 0.8 billion

$$c = \text{currency ratio} = \text{currency} - \text{deposit ratio} = \frac{\text{currency}}{\text{deposits}} = \frac{C}{D} = \frac{400}{800} = 0.5$$

$$r = \text{required reserve ratio} = \frac{\text{required reserves}}{\text{deposits}} = 0.1$$

$$e = \text{excess reserve ratio} = \frac{\text{excess reserves}}{\text{deposits}} = \frac{0.8}{800} = 0.001$$

Q. Compute credit multiplier if the required reserved ratio is 10% and 12.5% for every ₹1,00,000 deposited in the banking system. What will be the total credit money created by the banking system in each case?

Q. If the required reserve ratio is 10 percent, currency in circulation is ₹ 400 billion, demand deposits are ₹ 1000 billion, and excess reserves total ₹ 1 billion, find the value of money multiplier.

MONEY MULTIPLIER (M)

The money multiplier process explains **how an increase in the monetary base** causes the **money supply to increase by a multiplied amount.** It is the ratio of stock of money to stock of high-powered money.

1st Formula	Money Multiplier (m) = $\frac{\text{Money Supply (M)}}{\text{Monetory Base (MB)}}$ where, Monetary Base = Currency in circulation + Bank reserves
2nd Formula	Money Multiplier (m) = $\frac{1+c}{c+r+e} = \frac{c+1}{c+r+e}$ c = currency ratio = currency/deposits r = required reserve ratio = required reserves/deposits e = excess reserve ratio = excess reserves/deposits
3rd Formula	If we assume- 1. Banks never hold excess reserves. (e = 0) 2. Individuals and non-bank corporations never hold currency (c = 0) Then, money multiplier is reciprocal of the required reserve ratio. Money Multiplier (m) = $\frac{1}{\text{Required Reserve Ratio}} = \frac{1}{R}$
	$m = \frac{1}{R}$ formula can also be referred to as the Credit Multiplier or Deposit Multiplier or Deposit Expansion Multiplier or Deposit Expnasion Multiplier

DETERMINANTS OF MONEY SUPPLY

Money multiplier approach to money supply propounded by Milton Friedman and Anna Schwartz, (1963) considers **three factors as immediate determinants of money supply-**

1. Stock of high-powered money (H)
   Depends upon Behaviour of Central Bank
2. Reserve-ratio (r) = R/D
   Depends upon Behaviour of Commercial Banks
3. Currency Deposit Ratio (c) = C/D
   Depends upon Behaviour of Public

1. Stock of high-powered money (H)

Depends upon Behaviour of Central Bank

Money stock is determined by the money multiplier and the monetary base (H) is **controlled by the monetary authority.** Other factors being constant, total supply of money in economy **varies directly** with the supply of high-powered money.

2. Reserve-ratio (r) = R/D

Depends upon Behaviour of Commercial Bank

If required reserve ratio **increases**:

- banks will decrease lending

- causing a decline in deposits

and hence money supply will decline.

If required reserve ratio **decreases -**

- banks will increase lending,
- causing a rise in deposits and hence money supply will **increase.**

Smaller the required reserve ratio → **larger** will be the money multiplied

3. **Currency Deposit Ratio (c) = C/D**

Depends upon Behaviour of Public

Demand deposits undergo **multiple expansions** while **currency** in your hands does **not.**

If public decides to keep **more money in their pocket** and less money in bank. It leads to an **increase in currency ratio** and **banks can create only less credit money.** Thus **m falls.**

Eg- Fearing shortage of money in ATMs, people decide to hoard money

Currency-deposit ratio (c) also represents **degree of adoption of banking habits** by people. It is affected by the **degree of financial sophistication** in terms of ease and access to financial services, financial innovations, etc.

Eg: 1. Banks open **large number ATMs** all over the country, or

2. **E-banking becomes very common** and nearly all people use them

ATMs let people to withdraw cash from bank as and when needed, reduces cost of conversion of deposit to cash and makes deposits relatively more convenient. People hold less cash and more deposits, thus reducing currency-deposit ratio; increasing money multiplier and money supply.

The **time deposit-demand deposit ratio** (TD/DD ratio) i.e. how much money is kept as time deposits compared to demand deposits.

An **increase in TD/DD** ratio means that greater availability of free reserves which leads to increase in volume of multiple deposit expansion and thus, **high multiplier**

Can m = 0 ? It may happen when- **interest rates are too low** and **banks prefer to hold deposits as excess reserves** with no risk attached to it.

r, e and c are inversely related with multiplier and Money Supply

TD/DD ratio and high powered money are positively related with multiplier.

MONETARY POLICY AND MONEY SUPPLY

If the central bank of a country wants to **stimulate economic activity** it does so by **infusing liquidity into the system.**

Eg - Open Market Operations (OMO) by central banks.

Purchase of government securities injects high powered money (monetary base) into the system.

Assuming that

- banks do not hold excess reserves and
- people do not hold more currency than before and
- also that there is demand for loans from businesses,

credit creation process by banking system will create money to the tune of

$$\text{Money Supply} = \frac{1}{R} \times \Delta \text{Reserves} \times \Delta \text{Reserves}$$

EFFECT OF GOVERNMENT EXPENDITURE ON MONEY SUPPLY

Whenever **central and state governments'** cash balances **fall short** of the minimum requirement, they are eligible to avail of a facility called **Ways and Means Advances (WMA)/overdraft (OD)** facility.

When **RBI lends to governments** under WMA /OD, it results in the **generation of excess reserves** (i.e., excess balances of commercial banks with the Reserve Bank).

This happens because when **government incurs expenditure,** it involves **debiting the government balances** with the Reserve Bank and **crediting the receiver** (for e.g., salary account of government employee) account with the commercial bank.

The **extra reserves** thus created can potentially lead to an **increase in money supply** through the money multiplier process.

Questions

1. The supply of money in an economy depends on:

(*a*) The decision of the central bank based on the authority conferred on it.

(*b*) The decision of the central bank and the supply responses of the commercial banking system.

(*c*) The decision of the central bank in respect of high powered money.

(*d*) Both (*a*) and (*c*) above

2. If the behaviour of the public and the commercial banks is constant, then:

(*a*) The total supply of nominal money in the economy will vary directly with the supply of the nominal high-powered money issued by the central bank.

(*b*) The total supply of nominal money in the economy will vary directly with the rate of interest and inversely with reserve money.

(*c*) The total supply of nominal money in the economy will vary inversely with the supply of high powered money.

(*d*) All the above are possible.

3. Under the fractional reserve system:

(*a*) The money supply is an increasing function of reserve money (or high powered money) and the money multiplier.

(*b*) The money supply is an decreasing function of reserve money (or high powered money) and the money multiplier.

(*c*) The money supply is an increasing function of reserve money (or high powered money) and a decreasing function of money multiplier.

(*d*) None of the above as the determinants of money supply are different.

4. The money multiplier and the money supply are:

(*a*) Positively related to the excess reserves ratio e.

(*b*) Negatively related to the excess reserves ratio e.

(*c*) Not related to the excess reserves ratio e.

(*d*) Proportional to the excess reserves ratio e.

5. The currency ratio represents;

(*a*) The behaviour of central bank in the issue of currency.

(*b*) The behaviour of central bank in respect cash reserve ratio.

(*c*) The behaviour of the public.

(*d*) The behaviour of commercial banks in the country.

6. The size of the money multiplier is determined by:

(*a*) The currency ratio (*c*) of the public.

(*b*) The required reserve ratio (r) at the central bank.

(*c*) The excess reserve ratio (*e*) of commercial banks.

(*d*) All the above

7. _____tells us how much new money will be created by the banking system for a given increase in the high-powered money.

(*a*) The currency ratio

(*b*) The excess reserve ratio (*e*)

(*c*) The credit multiplier

(*d*) The currency ratio (*c*)

8. The money multiplier will be large:

(*a*) For higher currency ratio (*c*), lower required reserve ratio (r) and lower excess reserve ratio (*e*).

(*b*) For constant currency ratio (*c*), higher required reserve ratio (r) and lower excess reserve ratio (*e*).

(*c*) For lower currency ratio (*c*), lower required reserve ratio (r) and lower excess reserve ratio (*e*).

(*d*) None of the above

9. The ratio that relates the change in the money supply to a given change in the monetary base is called the:

(*a*) Required reserve ratio

(*b*) Money multiplier

(*c*) Deposit ratio

(*d*) Discount rate

10. For a given level of the monetary base, an increase in the required reserve ratio will denote:

(*a*) A decrease in the money supply.

(*b*) An increase in the money supply.

(*c*) An increase in demand deposits.

(*d*) Nothing precise can be said.

11. For a given level of the monetary base, an increase in the currency ratio causes the money multiplier to _____ and the money supply to _____.

(*a*) decrease; increase

(*b*) increase; decrease

(*c*) decrease; decrease

(*d*) increase; increase

12. If commercial banks reduce their holdings of excess reserves:

(*a*) The monetary base increases (*b*) The monetary base falls

(*c*) The money supply increases (*d*) The money supply falls

13. Calculate, Broad Money M_3 from the following data: **(Sept. 2025)**

Particulars	(₹ in Crores)
Currency with the public	2250
Demand Deposits with the banking system (DD)	630
Total Post office Deposits	478
Time deposits with banks	535
Savings deposits with Post Office Savings banks	312

(*a*) ₹ 3,415 crores (*b*) ₹ 3,225 crores

(*c*) ₹ 3,260 crores (*d*) ₹ 3,420 crores

14. If the money supply is ₹1,000 billion and the monetary base is ₹ 200 billion, what is the money multiplier (m)? **(Sept. 2025)**

(*a*) 5 (*b*) 2

(*c*) 10 (*d*) 0.2

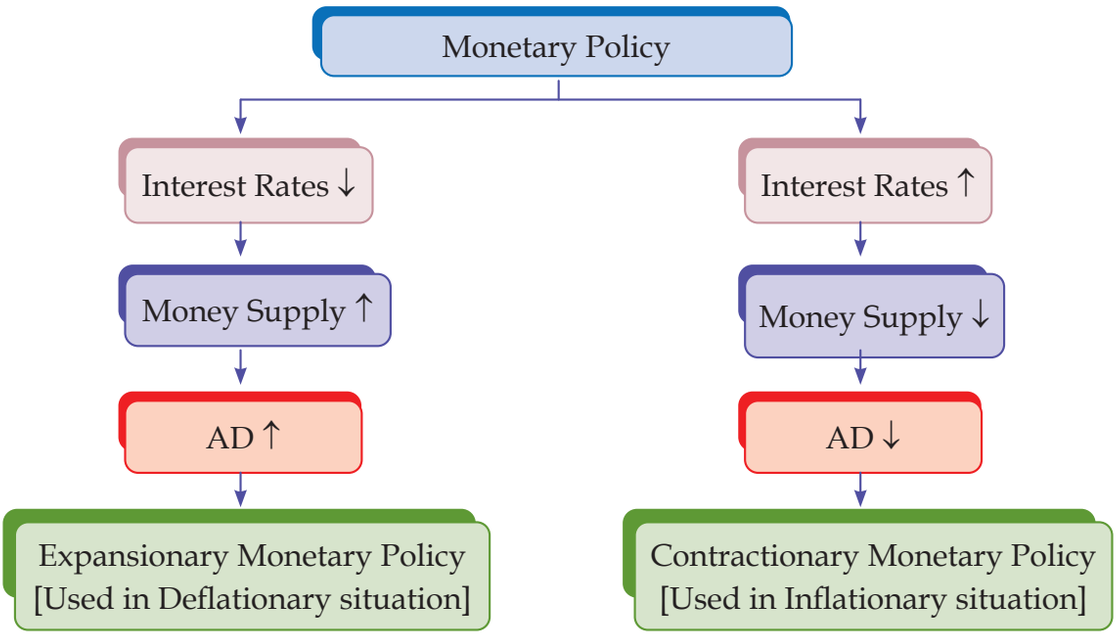
15. For initial deposit of ₹ 6,00,000, the credit creation is calculated at ₹ 50,00,000. What is Required Reserved Ratio (RRR)? **(Sept. 2025)**

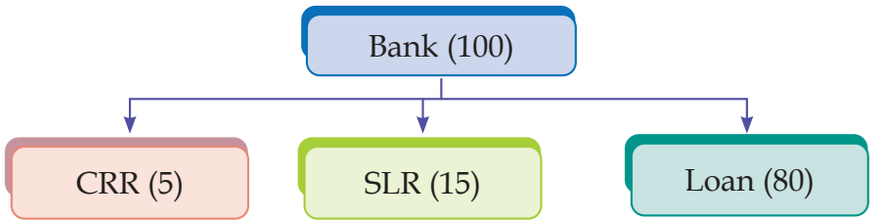
(*a*) 12% (*b*) 10%

(*c*) 12.5% (*d*) 8%

Answers

1. (*d*) **2.** (*a*) **3.** (*a*) **4.** (*b*) **5.** (*c*) **6.** (*d*) **7.** (*c*) **8.** (*c*) **9.** (*b*) **10.** (*a*)
11. (*c*) **12.** (*c*) **13.** (*a*) **14.** (*a*) **15.** (*a*)

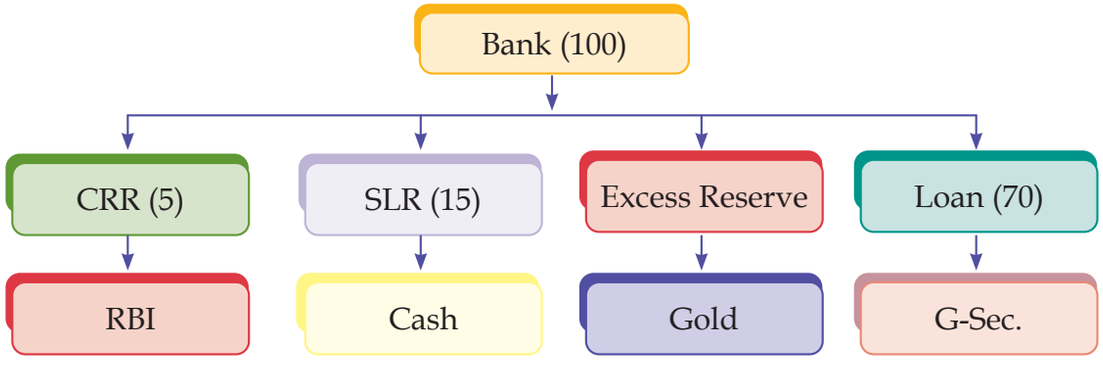


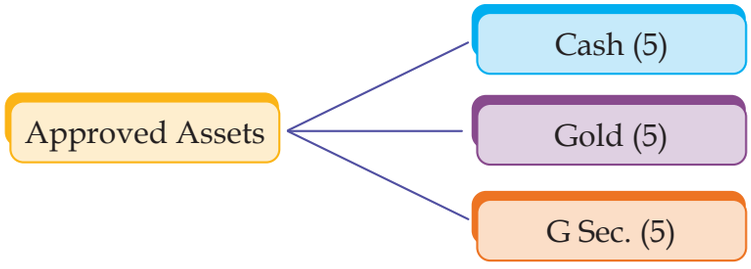


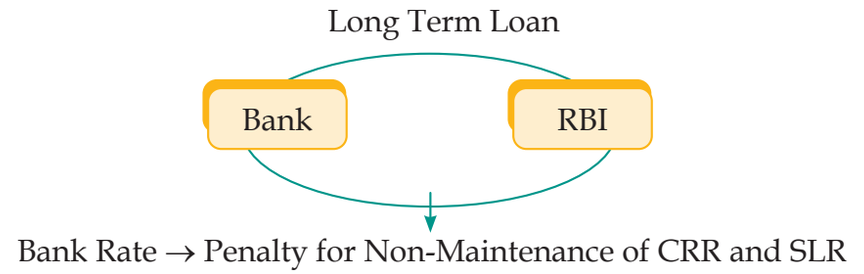
CRR + SLR = Required Reserve Ratio

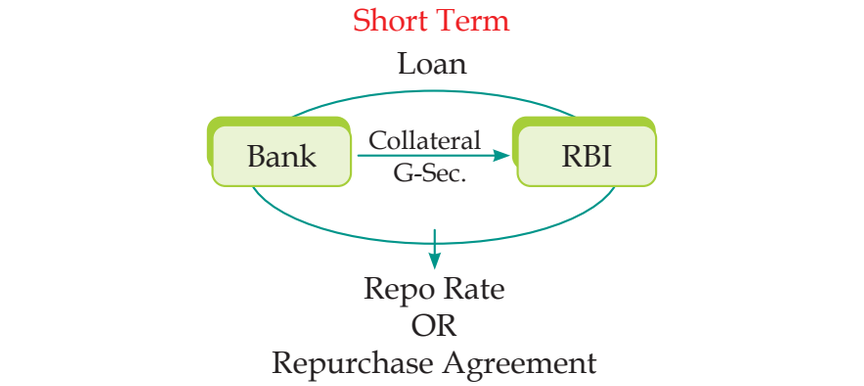
CRR↓ → Loan↑ → Ms↑

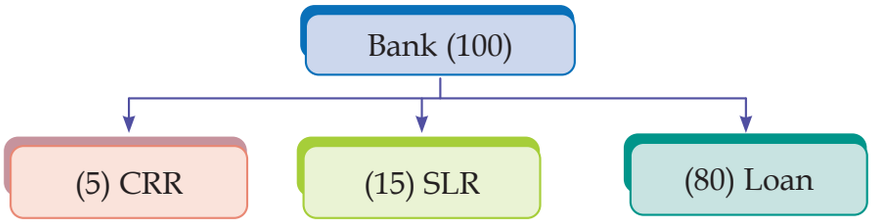
SLR↓ → Loan↑ → Ms↑

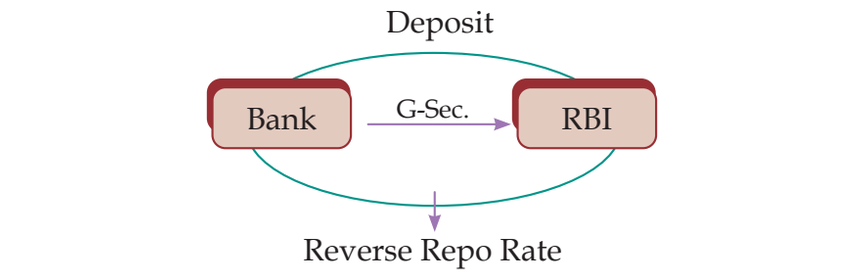


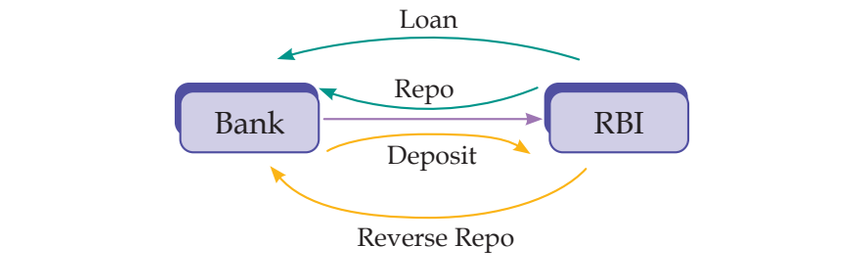




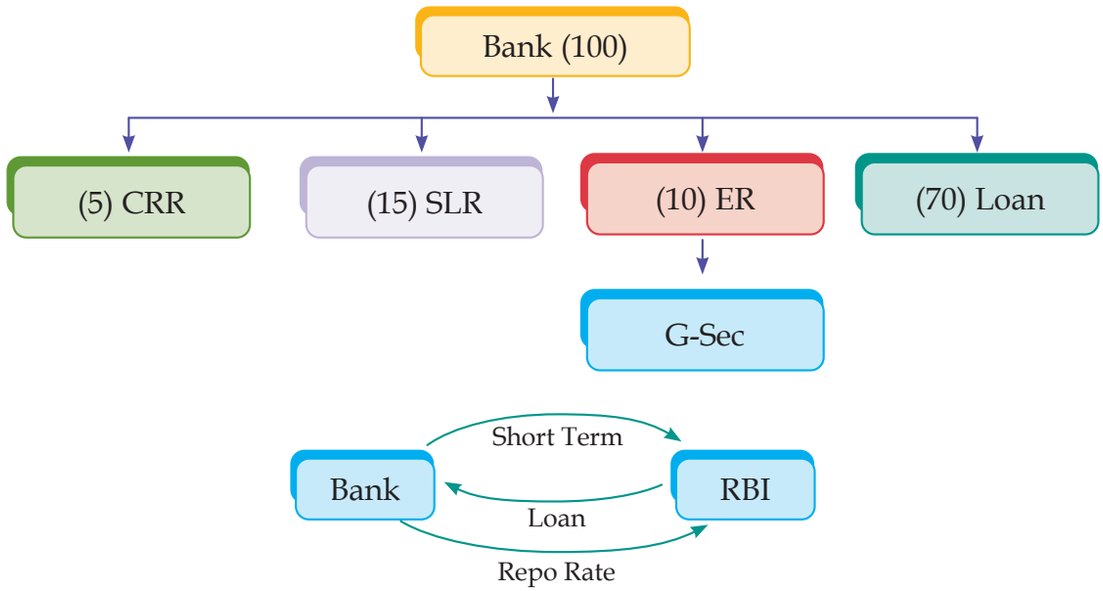








Repo Rate > Reverse Repo Rate



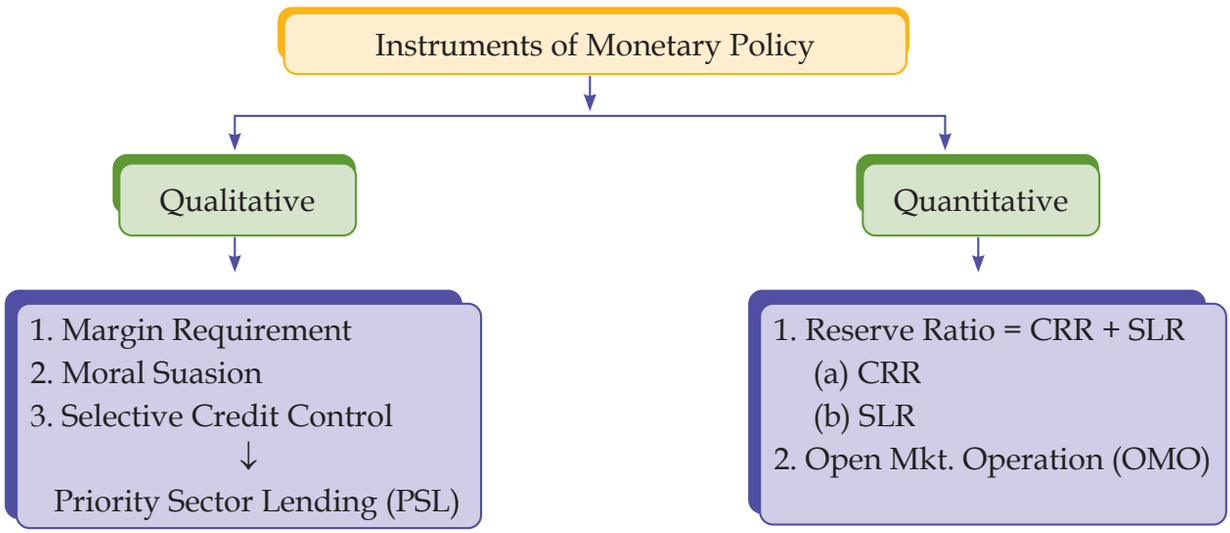
Margin Requirement = Value of Collateral – Amount of Loan

$\uparrow$ $\uparrow$

10 Cr. = 100 Cr. = 90 Cr.

Margin $\uparrow$ = 100 Cr. = $\rightarrow$ 100 Cr.

INSTRUMENTS OF MONETARY POLICY



Quantitative Tools

These are the tools of monetary policy that impact money supply in the entire economy, including sectors such as manufacturing, agriculture, automobile, housing, etc.

1.	Reserve Ratio	Banks are required to keep aside a set percentage of cash reserves or RBI approved assets. Reserve ratio is of two types - CRR and SLR

		(a) Cash Reserve Ratio (CRR): Banks are required to set aside this portion in cash with the RBI. The bank can neither lend it to anyone nor can earn any interest rate or profit on CRR
		(b) Statutory Liquidity Ratio (SLR): Banks are required to set aside this portion in liquid assets such as gold or RBI approved securities such as government securities. Banks are allowed to earn interest on these securities, however it is very low.
2.	Open Market Operations (OMO)	1. In order to control money supply, the RBI buys and sells government securities in the open market. 2. These operations conducted by the Central Bank in the open market are referred to as Open Market Operations. 3. When the RBI sells government securities, the liquidity is sucked from the market, and the exact opposite happens when RBI buys securities. 4. The objective of OMOs are to keep a check on temporary liquidity mismatches in the market, owing to foreign capital flow.

Qualitative Tools

Qualitative tools are selective tools that affects the money supply of a specific sector of the economy.

1.	Margin requirements	The RBI prescribes a certain margin against collateral, which in turn impacts the borrowing habit of customers. When the margin requirements are raised by the RBI, customers will be able to borrow less.
2.	Moral suasion	By way of persuasion, the RBI convinces banks to keep money in government securities, rather than certain sectors.
3.	Selective credit control	Controlling credit by not lending to selective industries or speculative businesses.
4.	Market Stabilization Scheme (MSS)	Under MSS the Government of India borrows from the RBI (such borrowing being additional to its normal borrowing requirements) and issues treasury- bills/dated securities.

MEASUREMENT OF MONEY SUPPLY

- RBI uses monetary policy to **manage economic fluctuations** and achieve **price stability,** which means that **inflation is low and stable.**
- RBI conducts monetary policy by adjusting supply of money, usually through buying or selling securities in open market.
- **Open market operations** affect short-term interest rates, which in turn influence longer-term rates and economic activity.
  - When RBI **lower interest rates,** monetary policy is **easing.**
  - When it **raises** interest rates, monetary policy is **tightening.**

OBJECTIVES OF MONETARY SUPPLY

RBI Act, 1934, in its preamble sets out the objectives of the Bank as 'to regulate the issue of bank notes and the keeping of reserves with a view to securing **monetary stability** in India and generally to operate the currency and credit system of the country to its advantage'.

The primary objective of monetary policy is maintenance of **judicious balance** between **price stability and economic growth.**

Objectives of Monetary Policy in case of Developing Countries

1. maintenance of **economic growth**
2. ensuring an **adequate flow of credit to productive sectors**
3. sustaining a **moderate structure of interest rates** to encourage investments,
4. creation of an **efficient market for government securities.**

Questions

1. What is the primary objective of monetary policy in most countries, including India? **(Sept. 2025)**

(*a*) To ensure a high level of government spending.

(*b*) To maintain a balance between price stability and economic growth.

(*c*) To promote export-led growth.

(*d*) To control exchange rates at all costs.

2. The main objective of monetary policy in India is:

(*a*) Reduce food shortages to achieve stability.

(*b*) Economic growth with price stability.

(*c*) Overall monetary stability in the banking system.

(*d*) Reduction of poverty and unemployment.

3. A contractionary monetary policy-induced increase in interest rates:

(*a*) Increases the cost of capital and the real cost of borrowing for firms.

(*b*) Increases the cost of capital and the real cost of borrowing for firms and households.

(*c*) Decreases the cost of capital and the real cost of borrowing for firms.

(*d*) Has no interest rate effect on firms and households.

4. During deflation:

(*a*) The RBI reduces the CRR in order to enable the banks to expand credit and increase the supply of money available in the economy.

(*b*) The RBI increases the CRR in order to enable the banks to expand credit and increase the supply of money available in the economy.

(*c*) The RBI reduces the CRR in order to enable the banks to contract credit and increase the supply of money available in the economy.

(*d*) The RBI reduces the CRR but increase SLR in order to enable the banks to contract credit and increase the supply of money available in the economy.

5. _____ is a money market instrument, which enables collateralized short-term borrowing and lending through sale / purchase operations in debt instruments.

(*a*) OMO (*b*) CRR

(*c*) SLR (*d*) Repo

6. Which of the following is not a quantitative tool as used by RBI to control the money supply in the entire economy? **(Sept. 2025)**

(*a*) Open Market Operations (*b*) Statutory Liquidity Ratio

(*c*) Selective Credit Control (*d*) Cash Reserve Ratio

7. Which monetary tool is used to check temporary liquidity mismatches in the market due to foreign capital flow? **(Sept. 2025)**

(*a*) Cash Reserve Ratio (CRR) (*b*) Statutory Liquidity Ratio (SLR)

(*c*) Open Market Operations (OMO) (*d*) Marginal Standing Facility (MSF)

8. Reverse repo operation takes place when:

(*a*) RBI borrows money from banks by giving them securities.

(*b*) Banks borrow money from RBI by giving them securities.

(*c*) Banks borrow money in the overnight segment of the money market.

(*d*) RBI borrows money from the central government.

9. Banks availing Marginal Standing Facility Rate can use a maximum of how much percentage of Statutory Liquidity Ratio Securities? **(May 2025)**

(*a*) 1% (*b*) 2%

(*c*) 3% (*d*) 4%

10. Which of the following expressions is true? **(May 2025)**

(*a*) Reverse Repo Rate = Repo Rate – 1 (*b*) Reverse Repo Rate = Repo Rate + 1

(*c*) Reverse Repo Rate = Repo Rate + 1 (*d*) Repo Rate = 1 – Reverse Repo Rate

11. Marginal Standing Facility (MSF) Rate is the penal rate at which the Central Banks lend money to Banks, over the rate available under the Repo Policy. Which of the following are the correct options to calculate MSF Rate **(Sept. 2025)**

Option (1): MSF Rate = Repo Rate + 1

Option (2): MSF Rate = Repo Rate – 1

Option (3): reverse repo Rate = Repo Rate + 1

Option (4): reverse repo Rate = Repo Rate – 1

(*a*) Option (1) and (4) (*b*) Option (2) and (3)

(*c*) Option (1) and (3) (*d*) Option (2) and (4)

Answers

1. (*b*) **2.** (*b*) **3.** (*b*) **4.** (*a*) **5.** (*d*) **6.** (*c*) **7.** (*c*) **8.** (*a*) **9.** (*a*) **10.** (*a*) **11.** (*a*)

THE MONETARY POLICY FRAMEWORK

The central bank, in its execution of monetary policy, functions within an articulated monetary policy framework which has three basic components, viz.

(i) **objectives** of monetary policy,

(ii) **analytics** of monetary policy which focus on transmission mechanisms, and

(iii) **operating procedure** which focuses on operating targets and instruments

TRANSMISSION OF MONETARY POLICY

The transmission of the monetary policy describes **how changes** made by RBI to its monetary policy settings **flow through to economic activity** and inflation.

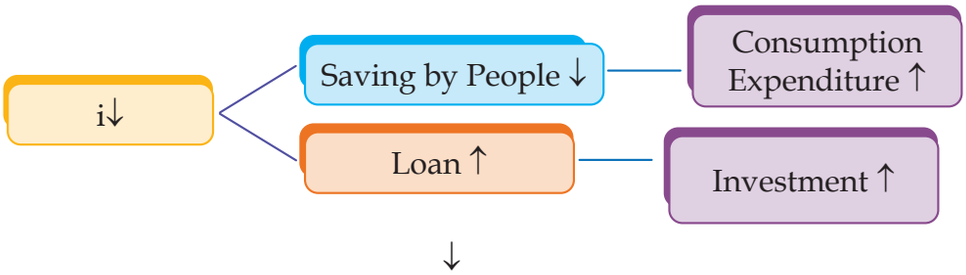
In simple terms, the transmission can be summarized in two stages.

1. Changes to monetary policy **affect interest rates** in the economy.
2. Changes to interest rates **affect economic activity** and **inflation.**

CHANNELS OF TRANSMISSION OF MONETARY POLICY

1. Saving – Investment Channel
2. Cash Flow Channel
3. Asset Prices and Wealth Channel
4. Exchange Rate Channel

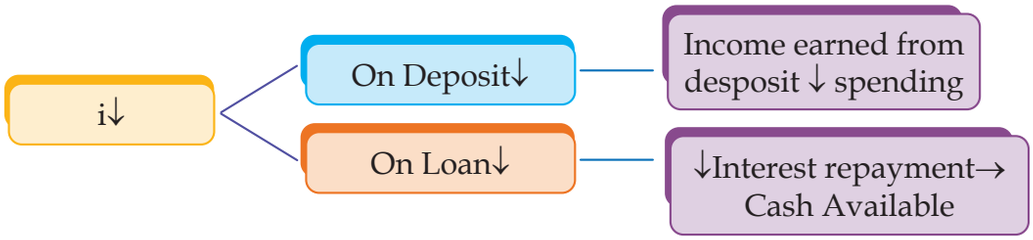
Saving and Investment Channel



This channel typically affects consumption, housing investment, and business investment.

1. **Lower interest rates on bank deposits reduce incentives of** households to save their money. Instead, there is an increased incentive for them to spend their money on Goods and services.
2. **Lower interest rates for loans** can encourage households to **borrow more** as they face lower repayments. Lower lending rates support **higher demand for assets,** such as housing.
3. **Lower lending rates can increase investment spending** by businesses (on capital goods like new equipment or buildings). This is because the **cost of borrowing is lower,** and because of increased demand for the goods and services they supply. This means that **returns on these projects** are now more likely to be **higher than the cost of borrowing,** helping to justify going ahead with the projects.

Cash-Flow Channel

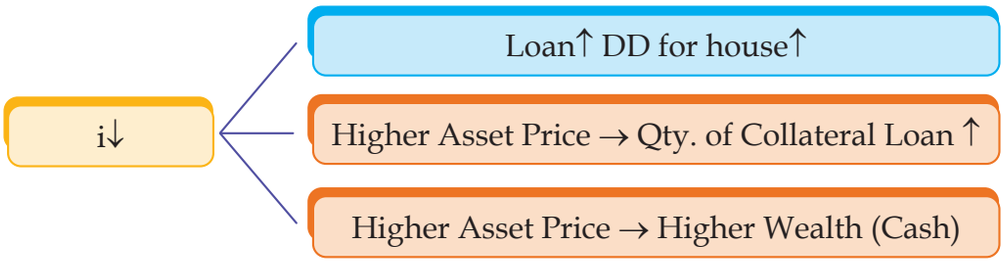


Monetary policy influences interest rates, which affects the decisions of households and businesses by **changing the amount of cash they have available to spend** on goods and services.

- A reduction in lending rates **reduces interest repayments on debt, increasing** the amount of **cash available** for households and businesses to spend on goods and services.
- At the same time, a reduction in interest rates **reduces the amount of income** that households and businesses get **from deposits,** and some may choose to **restrict their spending.**

These two effects work in opposite directions, but a reduction in interest rates can be expected to increase spending in economy (with the first effect larger than the second).

Asset Prices and Wealth Channel



Asset prices and people's wealth influence how much they can borrow and spend. This channel affects consumption and investment.

- **Lower interest rates support asset prices** (such as housing and equities) by **encouraging demand** for assets. One reason for this is that **the present discounted value** of future income is higher when interest rates are lower.
- **Higher asset prices also increase the equity** (collateral) of an asset that is **available for banks to lend** against. This can make it **easier** for households and busine ⇒ sses **to borrow.**
- **An increase in asset prices increases people's wealth.** This can lead to **higher consumption** and **housing investment** as households generally spend some share of any increase in their wealth.

Exchange Rate Channel

Interest Rates↓
↓
Lower Return on Indian Mkt.
↓
Foreigner will shift their funds to Foreign Assets (Currency)
↓
Demand for Indian Currency

↓

Value of Indian Currency↓

↓

Depreciation of Indian Currency ⇒ Domestic goods are now became cheaper for foreigner

Export↑ Import↓

90% → 80%

Strong/Appreciation of ₹ Demand for foreign goods

Exports↓

90% → 80%

Weak/Depreciation of ₹ → Import↓

→ Exports↑

The exchange rate can influence sectors that are export-oriented or exposed to competition from imported goods and services.

- If **RBI lowers cash rate** it means that **interest rates have fallen in India** compared with interest rates in rest of world
- **Lower interest rates reduce returns that investors earn from assets in India** (relative to other countries). Lower returns **reduce demand for assets** in India (also for Indian rupees) with investors **shifting their funds to foreign assets** (and currencies) instead.
- A reduction in interest rates, (compared with rest of world) results in **a lower exchange rate,** making **foreign goods** and services more expensive compared with those produced in India. This leads to an **increase in exports** and **domestic activity.**
- A lower exchange rate also adds to **inflation,** as **imports become more expensive** in Indian rupees.

Questions

1. The monetary transmission mechanism refers to

(*a*) How money gets circulated in different sectors of the economy post monetary policy

(*b*) The ratio of nominal interest and real interest rates consequent on a monetary policy

(*c*) The process or channels through which the evolution of monetary aggregates affects the level of product and prices

(*d*) None of the above

2. Which of the following is the function of monetary policy?

(*a*) Regulate the exchange rate and keep it stable

(*b*) Regulate the movement of credit to the corporate sector

(*c*) Regulate the level of production and prices

(*d*) Regulate the availability, cost and use of money and credit

Answers

1. (*c*) **2.** (*d*)

Policy Rates

1.	Bank Rate	The interest rate at which RBI lends long term funds to banks is referred to as the bank rate. Bank rate is used to prescribed penalty for not maintaining the prescribed SLR or CRR. However, presently RBI does not entirely control money supply via the bank rate. It uses Liquidity Adjustment Facility (LAF) – repo rate as one of the significant tools to establish control over money supply.
2.	Liquidity Adjustment Facility (LAF)	RBI uses LAF as an instrument to adjust liquidity and money supply. The following types of LAF are:
		(a) Repo Rate: Repo rate is the rate at which banks borrow from RBI on a short-term basis against a repurchase agreement. Under this policy, banks are required to provide government securities as collateral and later buy them back after a pre-defined time.
		(b) Reverse Repo Rate: It is the reverse of repo rate, i.e., this is the rate RBI pays to banks in order to keep additional funds in RBI. It is linked to repo rate in the following way: Reverse Repo Rate = Repo Rate - 1
		(c) Marginal Standing Facility (MSF) Rate: MSF Rate is the penal rate at which the Central Bank lends money to banks, over the rate available under the repo policy. Banks availing MSF Rate can use a maximum of 1% of SLR securities. MSF Rate = Repo Rate + 1

ORGANIZATIONAL STRUCTURE FOR MONETARY POLICY DECISIONS

The Reserve Bank of India (RBI) Act, 1934 was amended in 2016, for giving a statutory backing to the Monetary Policy Framework Agreement.

It is an **agreement** reached between the **Government of India and the RBI** on the **maximum tolerable inflation rate** that the RBI should target to **achieve price stability.** The amended RBI Act (2016) provides for a statutory basis for the implementation of the **'flexible inflation targeting framework.**

Announcement of an official target range for inflation is known as inflation targeting.

The Expert Committee under Urijit Patel revised the monetary policy framework, in January, 2014 and suggested to abandon the 'multiple indicator' approach and make inflation targeting the primary objective of its monetary policy.

The **inflation target** is to be **set by the Government of India, in consultation with RBI, once in every five years.**

Accordingly, Central Government has notified:

- **4 percent, Consumer Price Index (CPI) inflation** as the target for period from **Aug 5, 2016 to Mar 31, 2021** with the:
  - **upper tolerance limit of 6 percent** and
  - **lower tolerance limit of 2 percent.**

The RBI is mandated to publish a **Monetary Policy Report** every six months, explaining the **sources of inflation** and the **forecasts** of inflation for the coming period of **six to eighteen months.**

The following factors are notified by the central government as constituting a failure to achieve the inflation target:

- **Average inflation is more than upper tolerance** level of inflation target for any **three consecutive quarters;** or
- **Average inflation** is **less than lower tolerance** level for any **three consecutive quarters.**

The choice of CPI was made because it closely reflects cost of living and has larger influence on inflation expectations compared to other anchors. With this step, India is following countries such as the New Zealand, the USA, the UK, European Union, and Brazil. In recent times many countries are moving away from this approach and are targeting nominal GDP growth.

Questions

1. Which of the following statements is correct?

(*a*) The governor of the RBI in consultation with the Ministry of Finance decides the policy rate and implements the same.

(*b*) While CRR has to be maintained by banks as cash with the RBI, the □LR requires holding of approved assets by the bank itself.

(*c*) When repo rates increase, it means that banks can now borrow money through Open Market Operations (OMO).

(*d*) None of the above

2. The Monetary Policy Framework Agreement is on:

(*a*) the maximum repo rate that RBI can charge from government.

(*b*) the maximum tolerable inflation rate that RBI should target to achieve price stability.

(*c*) the maximum repo rate that RBI can charge from the commercial banks.

(*d*) the maximum reverse repo rate that RBI can charge from the commercial banks.

3. RBI provides financial accommodation to the commercial banks through repos/reverse repos under:

(*a*) Market Stabilization Scheme (MSS) (*b*) The Marginal Standing Facility (MSF)

(*c*) Liquidity Adjustment Facility (LAF) (*d*) Statutory Liquidity Ratio (SLR)

4. In India, the term 'Policy Rate' refers to:

(*a*) The bank rate prescribed by the RBI in its half yearly monetary policy statement.

(*b*) The CRR and SLR prescribed by RBI in its monetary policy statement.

(*c*) The fixed repo rate quoted for sovereign securities in the overnight segment of Liquidity Adjustment Facility (LAF).

(*d*) The fixed repo rate quoted for sovereign securities in the overnight segment of Marginal Standing Facility (MSF).

5. Broad money includes currency deposits with an agreed maturity of up to _____ years, deposits redeemable at notice up to _____ months and repurchase agreements, money market fund shares/units and debt security up to _____ years. **(MAY 2025)**

Broad money (M_3) includes currency, deposits with an agreed maturity of up to two years, deposits redeemable at notice of up to three months and repurchase agreements, money market fund shares/units, and debt securities up to two years

(*a*) 3 years, 6 months, 3 years

(*b*) 2 years, 6 months, 2 years

(*c*) 3 years, 3 months, 3 years,

(*d*) 2 years, 3 months, 2 years

6. What is the likely impact of an increase in the Time Deposit to Demand Deposit (TD/DD) ratio on the banking system and monetary expansion? **(MAY 2025)**

(*a*) It leads to higher availability of free reserves and consequent enlargement of volume of multiple deposit expansion and monetary expansion.

(*b*) It reduces the availability of free reserves, thereby restricting the process of monetary expansion.

(*c*) It has no impact on the banking system as time deposits and demand deposits are interchangeable.

(*d*) It directly reduces the money supply as time deposits are not considered part of the money supply.

Answers

1. (*b*) **2.** (*b*) **3.** (*c*) **4.** (*c*) **5.** (*d*) **6.** (*b*)

09

INTERNATIONAL TRADE

CONTENT OF THE CHAPTER

Unit-1: Theories of International Trade
Unit-2: The Instruments of Trade Policy
Unit-3: Trade Negotiations
Unit-4: Exchange Rate and Its Economic Effects
Unit-5: International Capital Movements

UNIT 1: THEORIES OF INTERNATIONAL TRADE

INTRODUCTION

International Trade = The exchange of goods, services and resources between different countries. It involves transactions between residents of different countries.

Benefits of International Trade

- International trade stimulates economic efficiency, growth and raises incomes.
- Efficient deployment of resources, decrease domestic monopolies.
- Access to new markets and materials, enables sourcing inputs and components. It also enables nations to acquire foreign exchange reserves necessary for imports which are crucial for sustaining their economies.
- International Trade necessitates increased use of automation, supports technological change, stimulates innovations and facilitates greater investment in research and development and productivity improvement in the economy.
- Trade also provides greater stimulus to innovative services in banking, insurance, logistics, consultancy services etc.
- For emerging economies, improvement in the quality of output of goods and services, superior products, finer labour etc. enhance value of products and enable them to move up the global value chain.
- Opening up of new markets results in broadening the productive base and facilitates export diversification so that new production possibilities are opened up.
- Trade can also contribute to human resource development, by facilitating fundamental and applied research and exchange of know-how.
- Strengthens bonds between nations and thus, promotes harmony and Co operation among nations.

Arguments Against International Trade

1. International trade may not equally benefit all nations due to unequal market access and a lack of fair trading principles, which can amplify/increase disparities, especially among wealth-diverse countries.
2. Underprivileged countries are Vulnerable to or not safe from economic exploitation/not safe to economic exploitation by powerful global corporations, which can outperform domestic entities.
3. Extensive environmental damage and rapid resource depletion can have severe negative consequences for society.
4. Economic crises and trade cycles in one country can quickly spread to others, leading to global economic instability.
5. Underdeveloped countries' dependence on foreign nations can impair economic autonomy and political sovereignty, risking exploitation and loss of cultural identity.
6. Over-reliance on exports can lead to a distortion of a country's actual investment priorities
7. Lack of transparency and predictability in trade policies of trading partners, as well as the risks associated with changes in governments' policies, can pose challenges in international trade.

IMPORTANT THEORIES OF INTERNATIONAL TRADE

Theories of International Trade

1. The Mercantilists' View of International Trade
2. The Theory of Absolute Advantage
3. The Theory of Comparative Advantage
4. The Heckscher-Ohlin Theory of Trade
5. New Trade Theory of International Trade

THE MERCANTILISTS' VIEW OF INTERNATIONAL TRADE

- Mercantilism, which is derived from the word mercantile, "trade and commercial affairs".
- Mercantilism, according to Microsoft Encarta Dictionary (2009), is the economic policy trending in Europe from the 16th to the 18th centuries, where the government used power to control industry and trade with the theoretical belief that national power is achieved and sustained by having constant large quantities of exports over imports.
- Nations' human and material resources are unevenly endowed, distributed and developed.
- This allows flow of labour, raw materials, capital and finished products across national boundaries and markets thus resulting in "mercantilism" as the earliest international economic system that proposes massive and aggressive Exports over Imports to accumulate wealth, to have favourable balance of payment and trade and to be still relevant in today's economy.

THE THEORY OF ABSOLUTE ADVANTAGE

- According to **Adam Smith,** a country will **specialize in production and export** of commodity in which it has an **absolute cost advantage**
- The principle of absolute advantage refers to the **ability of a party** (An individual, or firm, or country) to produce a greater quantity of **a good or service than competitors, using the same amount of resources.**

- Adam Smith assumed **labor as the only input.**
- **Exchange of goods** between two countries will take place **only if each of two countries** can **produce one commodity** at an a**bsolutely lower production cost than the other** country.

Commodity	Productivity of Labour Output per Hour of Labour	
	Country A	**Country B**
Wheat (Units/hour)	5	1
Cloth (Units/hour)	3	4

A has **absolute advantage in production of wheat,** so country A will export and specialize in production of wheat

B has **absolute advantage in production of cloth** so country B will export and specialize in production of cloth.

The above theory explained that **mutually gainful trade is possible.**

Commodity	Labour Cost Per Unit of Output	
	Country A	**Country B**
Wheat	5	1
Cloth	3	4

A has **absolute advantage in production of cloth,** so country A will export and specialize in production of **cloth**

B has **absolute advantage in production of wheat** so country B will export and specialize in production of **wheat.**

The above theory explained that **mutually gainful trade is possible.**

Assumptions of the Absolute Advantage Theory

1. Trade between the two countries.
2. Two-country and two-commodity framework for his analysis.
3. No transportation cost.
4. Smith assumed that the costs of the commodities were computed by the relative amounts of labour required
5. He assumed that labour was mobile within a country but immobile between countries.
6. Any trade between the two countries considered would take place if each of the two countries had an absolutely lower cost in the production of one of the commodities.

Question

1. Who proposed that a country should export goods in which it has the greatest absolute advantage and import goods in which its absolute advantage is comparatively less?

(May 2025)

(*a*) Adam Smith
(*b*) David Ricardo
(*c*) Eli Heckscher and Bertil Ohlin
(*d*) John Maynard Keynes

Answer

1. (*a*)

THE THEORY OF COMPARATIVE ADVANTAGE

This theory was given by **David Ricardo** observed that trade was driven by comparative rather than absolute cost.

Ricardo's insight was that such a country would still benefit from trading according to comparative advantage exporting products in which absolute advantage was greatest and importing products in which absolute advantage was comparatively less.



Assumptions

1. 2 Countries
2. 2 goods
3. 1 Labour factor
4. No Transportation cost



Douglas Irwin (2009) calls comparative advantage "Good News" for economic development. 'Even if a developing country lacks an absolute advantage in any field, it will **always have a comparative advantage** in the production of some goods," and will **trade profitably with advanced economies.**

Haberler introduced the concept of opportunity cost in the theory of comparative advantage.

Questions

1. In the Theory of Comparative Costs, which of the following statements are true? **(Sep 2025)**

   I. It is based on money cost which is more realistic
   II. It is Positive in Nature
   III. It is Normative in nature
   IV. Do not take into account the factor price differences

   (*a*) I and II are correct
   (*b*) III and IV are correct
   (*c*) II and IV are correct
   (*d*) I and IV are correct

2. Money Cost is Considered by
   (*a*) Modern theory of Trade
   (*b*) Comparative Cost
   (*c*) New Trade Theory
   (*d*) Factor equalization theorem

Answers

1. (*c*) **2.** (*a*)

THE HECKSCHER-OHLIN THEORY OF TRADE

This theory is also known as Factor-Endowment Theory of Trade or Modern Theory of Trade.

This theory States that **comparative advantage in cost** of production is explained exclusively by the **differences in factor endowments** of the nations.

Factor endowment refers to the **overall availability** of usable resources-labour and capital.

It states that a country tends to:

- Specialise in the **export** of a commodity whose **production** requires intensive **use of its abundant resources** and
- Imports a commodity whose **production** requires intensive **use of its scarce resources**
- Capital abundant country- **Produce and export capital-intensive** goods relatively more cheaply than other countries.
- Labour-abundant country- **Produce and export labour-intensive goods** relatively more cheaply than another country.

COMPARISON OF THE THEORY OF COMPARATIVE COSTS AND THE MODERN THEORY

	Theory of Comparative Costs	Modern Theory
Basis	Differences in comparative costs	Differences in factor endowments
Theory	Labour theory of value	Based on the money cost
Factors	Labour as the sole factor	Includes labour and capital; 2-factor model
Trade	International trade is distinct from domestic trade	International trade is a special case of interregional trade
Focus	Studies the comparative costs of goods	Considers the relative prices of factors
Advantage	Differences in the productive efficiency of workers	Differences in factor endowments
Prices	Ignores factor price differences	Considers factor price differences
Cause	Explains differences in comparative advantage	Explains differences based on factor endowments
Approach	Normative; shows gains from international trade	Positive; focuses on the basis of trade

GLOBALISATION AND NEW INTERNATIONAL TRADE THEORY

- Developed in the **1980s**, introduced **imperfect competition and increasing returns.**
- **Positive-Sum Game** → Trade benefits countries mutually.
- **Key Gains** → Expands **markets,** increases **competition,** and enables **economies of scale.**
- **Paul A Samuelson:** The factor price equalisation theorem
- **Paul Krugman noticed** → Trade occurs between **countries having similar capital-to-labour ratios. Krugman defended free trade**
- **Krugman wrote " in praise of cheap Labour" published in Slate in 1997**

NEW TRADE THEORY

New Trade Theory helps in understanding **why developed and big countries** are trade partners when they are **trading similar Goods and Services.**

Eg. Electronic, IT, Cars etc.

Those **countries with the advantages will dominate the market and the market** takes the form of **monopolistic competition.**

Two key concepts give advantages to countries that import goods to compete with products from the home country:

1. **Economies of Scale:** If firm **serves domestic as well as foreign market** then it **can reap benefit of large scale of production and increase profits.**
2. **Network Effects:** The value of goods and services is enhanced as number of individuals using it increases. This is called **bandwagon effect Consumers like more choices** but they also **want goods and services with high utility and network effect increases utility**

   Eg: WhatsApp and software like **Windows.**

Questions

1. Given the number of labour hours to produce wheat and rice in two countries and that these countries specialize and engage in trade at a relative price of 1:1 what will be the gain of country X?

Labour cost (hours) for production of one unit

	Wheat	Rice
Country X	10	20
Country Y	20	10

(*a*) 20 labour hours
(*b*) 10 labour hours
(*c*) 30 labour hours
(*d*) Does not gain anything

2. Assume India and Bangladesh have the unit labour requirements for producing tables and mats shown in the table below. It follows that:

Labour cost (hours) for production one unit

	India	Bangladesh
Tables	3	8
Mats	2	1

(*a*) Bangladesh has a comparative advantage in mats
(*b*) India has a comparative advantage in tables
(*c*) Bangladesh has an absolute advantage in mats
(*d*) All the above are true

3. According to the theory of comparative advantage
(*a*) Trade is a zero-sum game so that the net change in wealth or benefits among the participants is zero
(*b*) Trade is not a zero-sum game so that the net change in wealth or benefits among the participants is positive
(*c*) Nothing definite can be said about the gains from trade
(*d*) Gains from trade depends upon factor endowment and utilization

4. Ricardo explained the law of comparative advantage on the basis of
(*a*) Opportunity costs
(*b*) The law of diminishing returns
(*c*) Economies of Scale
(*d*) The labour theory of value

Answers

1. (*b*) **2.** (*d*) **3.** (*b*) **4.** (*d*)

UNIT-2: THE INSTRUMENTS OF TRADE POLICY

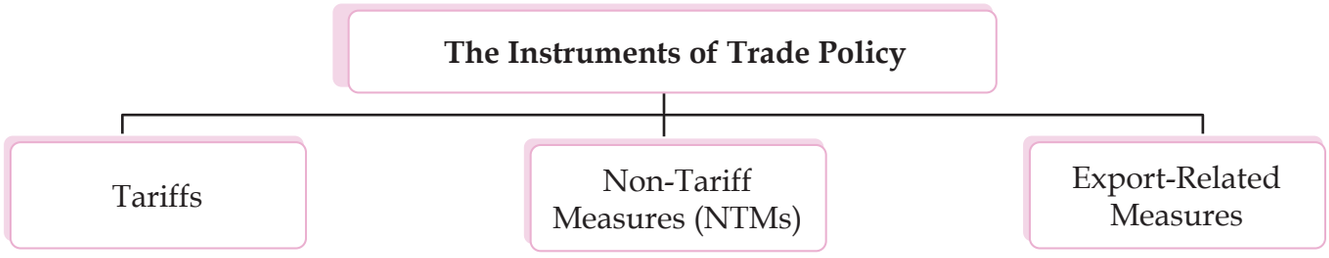
INTRODUCTION

Before we go into the subject matter of this unit, we shall take a quick look at a few recent developments in India's international trade strategy.

- After a decade of eschewing free trade deals, India has embarked on an FTA-signing spree that is quickly transforming the country into one of the most FTA-engaged countries in the world.
- The reinvigorated Free Trade Agreement rush began with an agreement with Mauritius on 1 April 2021, followed by fast-track negotiations with the United Arab Emirates (UAE), Australia, the United Kingdom (UK), Canada and the European Union (EU).
- On 18 February 2022, a comprehensive economic partnership agreement (CEPA) with the UAE was concluded within 90 days of the commencement of negotiations and has been in force since 1 May 2022. In addition, an Economic Cooperation and Trade Agreement (ECTA) with Australia also concluded on 2 April 2022.
- The next highly-anticipated Free Trade Agreement in the works is with the UK, which is expected to conclude by Diwali (the festival of lights) in October 2022. Free Trade Agreement discussions are also on the fast track with Canada, the EU, as well as with the Gulf Cooperation Council (GCC - Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE) and Israel.

Basic Definitions

- **Trade policies** are made by the government to either promote or restrict trade, export or import.
- **Free Trade:** Buyers and sellers from separate economies voluntarily **trade with a minimum of state interference.**
- **Protectionism:** It is a state policy aimed to **protect domestic producers** against **foreign competition** through the **use of tariffs, quotas** and **non-tariff trade policy instruments.**
- **Trade liberalisation:** It refers to the opening up of domestic markets to the rest of the world by lowering trade barriers.



Tariff = Custom Duties

- Taxes on **imported and exported goods & services is called tariff.**
- **In this unit, tariff would refer to imported duties**
- **Kindly do not forget this fact that Tariff** raises **domestic price,** not world price.
- Main goal of tariff is to raise revenue of the govt. And to protect domestic import competing industries.

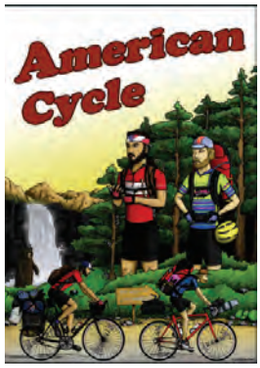
TYPES OF TARIFFS

1. **Specific Tariff:** It is fixed amount of money per physical unit or according to weight or measurement of commodity imported or exported.

   This tariff can vary according to the type of good imported.

   Example, a specific tariff will be ₹1000/unit of import.

   The advantage of specific tariff is its convenience for collection procedures. It has its disadvantage because it is regressive in nature.



2. **Ad Valorem Tariff:** When duty is **levied as fixed percentage of value of traded commodity.**

   i.e., A 50% ad valorem tariff on any import of American Cycle.

3. **Mixed Tariffs:** They are expressed either on **basis of value** of imported goods (An ad valorem rate) or on **basis of a unit of measure** of the imported goods (A specific duty) **whichever is higher.**

   For **Eg.:** duty on American cycle: 50% and ad valorem or ₹5000 fixed tax, whichever is higher.

4. **Compound Tariffs:** It is generally calculated by **adding up a specific duty** to **an ad valorem duty.**

   Thus, on an import with quantity q and price p, a compound tariff collects a revenue = $t_s q + t_a pq$.

   where t_s is the specific tariff and t_a is the ad valorem tariff.

   For example: Duty on swiss watches at 10% ad-valorem plus 200 per unit.

5. **Technical/Other Tariffs:** These are calculated on the basis of the **specific contents of imported goods** i.e., **duties are payable by its components** or related items.

   For Eg.: ₹10,000 on **each i-phone plus ₹100/ per unit** on its charger.





6. **Tariffs Rate Quota:** It **Combines two policy instruments quotas** and tariffs. Imports entering **under specified quota portion** are subject to **lower or zero tariff rate.**

   Imports **above quantitative threshold/limit** of quota face a **much higher tariff.**

7. **Variable Tariff:** A duty typically fixed to **bring the price of an imported commodity up to level of the domestic support price** for the commodity.

8. **Most-Favoured Nation Tariffs:** Import tariffs which **countries promise to impose on imports from other members of WTO,** unless country is part of a preferential trade agreement. In practice, MFN rates are the **highest that WTO members charge each other.** Some countries **impose higher tariffs on countries** that are not **part of the WTO.**
9. **Bound Tariff:** A WTO member **binds itself with legal commitment not to raise tariff rate above a certain level** (Maximum level of import duty).

   A member is always **free to impose a tariff that is lower** than bound level.

   Once bound, a tariff rate becomes permanent and a member can only **increase** its level **after negotiating with its trading partners and compensating them for possible losses** of trade.
10. **Applied Tariffs:**
    - Duty that is actually charged on imports on a Most-Favoured Nation (MFN) basis.
    - Applied tariff should not be higher than the bound level.
11. **Preferential Tariff:** Countries promise to give another country's products **lower tariffs than their MFN rate.**

    These agreements are **reciprocal,**

    Examples are **preferential duties in the EU region** under which a good coming from one EU country to another is charged zero tariff rate.

    Countries, may also grant **'unilateral preferential treatment'**

    Eg: Generalized System of Preferences (GSP)
12. **Escalated Tariff:** Tariff **rates on imports of manufactured goods** are higher than tariff **rates on intermediate inputs and raw materials.**

    For example, a 5% tariff on raw material of cycle and 10% tariff on American cycle.

    This type of tariff is **discriminatory** as it protects **manufacturing industries in importing countries** and **adversely affects industries of exporting countries.**
13. **Prohibitive Tariff:** It is **set so high** that **no imports can enter.**
14. **Import subsidies:** It is simply a **payment per unit or as percent of value for importation of a good** (i.e., a negative import tariff).
15. **Tariffs as Response to Trade Distortions: Countries affected by 'unfair' foreign-trade practices, respond** quickly by measures in the form of **tariff responses to offset the distortion,** (these policies are often referred to as "Trigger-price" mechanisms).

    Anti-dumping duty and Countervailing duties are related with this.
16. **Anti-Dumping Duty (ADD):** It is a **protectionist tariff** that a domestic govt imposes on **imports** that it believes are **priced below fair market value.**
    - Dumping may also be resorted to as a **predatory pricing** practice to **drive out domestic producers** from market and to establish monopoly.
    - Dumping is **unfair and is a threat to domestic producers** and thus, ADD is charged. This is **justified only** if the **domestic industry** is **seriously injured** by import competition, and **protection** is in **national interest.**
17. **Countervailing Duties:** It is charged in an importing country to **offset advantage that exporters get from subsidies** (from their govt.) to ensure fair pricing of imported goods and thus **protecting domestic** firms.

EFFECTS OF TARIFFS

1. Create **obstacles to trade, decrease imports and exports market access of exporting country is worsened.**
2. Tariffs **discourage domestic consumers from buying imported foreign goods.** Domestic consumers suffer a **loss in consumer surplus.**
3. Tariffs **encourage consumption and production of the domestically produced import substitutes** and thus protect domestic industries.
4. **Producers in importing country** experience an **increase in well being. Increases producer surplus** of domestic producers.
5. The price increase induces an **increase in output of the existing firms** and possibly **addition of new firms to industry** to take advantage of high profits and consequently **increase in employment.**
6. It discourage efficient production in rest of world and encourage inefficient production in home country, by **disregarding comparative advantage of foreign countries.**
7. Tariffs **increase government revenues** of importing country.

Questions

1. When a specified amount of tariff is charged per unit of the product (e g., ₹1000 per tonne of cement), then it is categorized as _____.
   (*a*) Specific Duty (*b*) Ad valorem Duty
   (*c*) A Compound Duty (*d*) Value Duty
2. Tariff leaned as a percentage of value of product is termed as._____.
   (*a*) Specific Duty (*b*) Fixed Duty
   (*c*) Ad valorem Duty (*d*) A Compound Duty
3. The tariff rate is ₹500 per tonne plus 10 per cent of the value of the product imported. This type of tariff is termed as_____.
   (*a*) Fixed Rate Duty (*b*) Variable Rate Duty
   (*c*) Ad valorem Duty (*d*) Compound Dun
4. The Government has imposed tariff as under:
   ₹3000 on each solar panel plus ₹50 per kg on the battery
   What is the type of tanff
   (*a*) Specific Tariff (*b*) Ad valorem Tariff
   (*c*) Compound Tariff (*d*) Technical Tariff
5. _____is calculated on the basis of both the value of the imported goods (An ad valorem duty) and a Unit of measure of the imported goods (a specific dun).
   (*a*) Compound Tariff
   (*b*) Ad valorem Duty
   (*c*) Technical Tariff
   (*d*) Tariff Rate Quotas

6. _____ tariffs refers to import tariffs. Which countries promise to impose on imports from other members of two WTO. Unless the country is a part of preferential trade agreement.

(*a*) MFN (*b*) MTN

(*c*) CFN (*d*) CTN

7. Escalated tariff refers to:

(*a*) Nominal tariff rates on raw materials which are greater than tariffs on manufactured products

(*b*) Nominal tariff rates on manufactured products which are greater than tariffs on raw materials

(*c*) A tariff which is escalated to prohibit imports of a particular good to protect domestic industries

(*d*) None of the above

8. What is the type of tariff which is set so high that no imports can enter?'

(*a*) Restricted Tariff

(*b*) Prohibitive Tariff

(*c*) Anti-Dumping Duty

(*d*) None of these

9. Dumping occurs when manufactures sell goods in a Foreign country _____.

(*a*) Below the Sales prices in their domestic market

(*b*) Below their full average cost of the product

(*c*) Free of cost

(*d*) Either (*a*) or (*b*)

10. Anti-dumping duties are:

(*a*) Additional import duties so as to offset the effects of exporting firm's unfair charging of pnces in the foreign market which are lower than production costs

(*b*) Additional import duties so as to offset the effects of exporting firm's increased competitiveness due to subsidies by government

(*c*) Additional import duties so as to offset the effects of exporting firm's unfair charging of lower prices in the foreign market

(*d*) Both (*a*) and (*b*) above

11. A countervailing duty is

(*a*) a tariff that aim to offset artificial-ly low prices charged by exporters who enjoy export subsidies and tax concessions in their home country

(*b*) charged by importing countries to ensure fair and market-orient-ed pricing of imported products.

(*c*) charged by importing counties to protect domestic industries and firms from unfair prices ad-vantage arising from subsidies.

(*d*) All of the above

Answers

1. (*a*) **2.** (*c*) **3.** (*d*) **4.** (*a*) **5.** (*a*) **6.** (*a*) **7.** (*b*) **8.** (*b*) **9.** (*d*) **10.** (*c*) **11.** (*d*)

NON-TARIFF MEASURES (NTMS)

From the discussion above, we have learnt that tariffs constitute the visible barriers to trade and have the effect of increasing the prices of imported merchandise. By contrast, the non-tariff measures which have come into greater prominence than the conventional tariff barriers, constitute the hidden or 'invisible' measures that interfere with free trade.

Non-tariff measures (NTMs) are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both (UNCTAD, 2010). Non-tariff measures comprise all types of measures which alter the conditions of international trade, including policies and regulations that restrict trade and those that facilitate it. NTMs consist of mandatory requirements, rules, or regulations that are legally set by the government of the exporting, importing, or transit country.

It should be kept in mind that NTMs are not the same as non-tariff barriers (NTBs). NTMs are sometimes used as means to circumvent free-trade rules and favour domestic industries at the expense of foreign competition. In this case they are called non-tariff barriers (NTBs). In other words, non-tariff barriers are discriminatory non-tariff measures imposed by governments to favour domestic over foreign suppliers. NTBs are thus a subset of NTMs that have a protectionist or discriminatory intent'. Compared to NTBs. non-tariff measures encompass a broader set of measures.

According to WTO agreements, the use of NTMs is allowed under certain circumstances. Examples of this include the Technical Barriers to Trade (TBT) Agreement and the Sanitary and Phytosanitary Measures (SPS) Agreement, both negotiated during the Uruguay Round. However, NTMs are sometimes used as a means to circumvent free-trade rules and favour domestic industries at the expense of foreign competition. In this case they are called non-tariff barriers (NTBs). It is very difficult, and sometimes impossible, to distinguish legitimate. NTMs from protectionist NTMs, especially because the same measure may be used for several reasons.

Non-Tariff measures includes all types of Other than tariff measures which **alter/change the conditions of international trade**, including **policies and regulations** that restrict/reduce trade and that facilitate / promote trade.

These are invisible or hidden measures that interfere with trade whereas tariff measures are visible barriers to trade.

NTMs are divided into two parts i.e.,

1. Technical measures and
2. Non-technical measures

TECHNICAL MEASURES

Technical measures are related with product's property, technical specification, production process to ensure quality of product, food safety, environmental protection, national security, and protection of animal and plant health.

These are divided into two parts-

1. **Sanitary and Phytosanitary (SPS) Measures**
2. **Technical Barriers to Trades (TBT)**

1. Sanitary and Phytosanitary (SPS) Measures

These are applied to **protect human, animal or plant life** from **risks arising from additives,** pests, etc. or disease-causing organisms and to **protect biodiversity living organism**

These include **ban or prohibition of import of certain goods**, all measures governing **quality and hygienic requirements.**

For Eg: **Prohibition of import of poultry from countries affected by avian flu** etc.

2. Technical Barriers to Trades (TBT)

It Covers both **food and non-food products** - refer to mandatory **'Standards and Technical Regulations'** define specific characteristics that product should have, like size, design, packaging, etc. excluding measures covered by SPS.

Conformity assessment procedures (e.g. testing, and certification) are done for this.

Eg: **Food laws, quality standards etc.**

NON-TECHNICAL MEASURES

Non-Technical measures **relate to trade requirements:**

For example: shipping requirements, custom formalities, trade rules, taxation policies, etc.

These are further distinguished as:

1. **Hard measures** (e.g., Price and quantity control measures),
2. **Threat measures** (e.g., Anti-dumping and safeguards) and
3. **Other measures** such as trade-related finance and investment measures.

Further more classification also distinguish between:

1. **Import-related measures:** Measures imposed by importing country, and
2. **Export-related measures:** Measures imposed by exporting country itself.
3. **Procedural Obstacles (PO):** Practical problems in administration, transportation, delays in testing, certification etc. which makes it difficult for org. to comply.

Types of Non-Technical Measures

1. **Import Quotas** direct restriction which specifies that **only certain physical amount of good will be allowed into country** and are usually enforced by issuing licenses.
   (a) Binding Quota: They are **set below the free trade level of imports** and are usually **enforced by issuing licenses.**
   (b) Non-binding quota: It is **set at or above the free trade level** of imports, thus having **little effect on trade.**
   (c) Tariff rate quotas (TRQs) **combine two policy** instruments namely **quotas** and **tariffs.**
   (d) **Absolute quotas or quotas of a permanent nature:** They limit quantity of imports to a specified level during a specified period of time and imports can take place any time of year.
   (e) Seasonal quotas and
   (f) Temporary quotas

With a quota, **government receives no revenue.** The **Profits received by the holders of such import licenses** are known as **'quota rents'.** If **quota is set below free trade level**, amount of **imports will reduce.**

2. **Price Control Measures:** These are steps taken to **control prices of imported goods** in order **to support domestic price of products** when **import prices are lower.**

   Also known as **'para-tariff measures** and include measures, other than tariff measures, that **increase cost of imports by a fixed percentage** or by a **fixed amount.**

   Eg.: A minimum import price established for sulphur.

3. **Non-automatic Licensing and Prohibitions:** These are aimed at **limiting quantity of goods** that can **be imported, regardless of whether they originate from different sources country or from one particular supplier.**

   These measures include non-automatic licensing, or **complete prohibitions.**

   Eg.: India prohibits import/exports of arms and related items **from/to Pakistan and Iraq.**

4. **Financial Measures:** The objective is to increase import costs by regulating the access to and cost of foreign exchange for imports and to **define terms of payment.**

   It includes measures like **advance payment requirements** and foreign exchange controls **denying use of foreign exchange** for certain types of imports.

5. **Measures Affecting Competition:** Measures are aimed at **granting exclusive or special preferences or privileges** to one or a few limited group of economic operators. It may include **government imposed special import channels enterprises,** and compulsory use of national serves.

   Eg.: A statutory marketing board may be **granted exclusive right to import wheat:** or a canalizing agency (like state trading Corp.) may be given monopoly right to distribute palm oil.

6. **Government Procurement Policies:** It involve **mandates** that whole of **specified percentage of government purchased** should be from **domestic firms** rather than foreign firms.

   In **accepting public, tenders,** a government may **give preference to local tenders** rather than foreign tenders

7. **Trade-Related Investment Measures:** These measures include rules on local content requirements that **mandate a specified fraction of a final good should be produced domestically.**

   (*a*) Requirement to use certain minimum levels of locally made components.

   (*b*) Restricting the level of imported components, and

   (*c*) Limiting the purchase or use of imported products to an amount related to the quantity or value of local products that it exports.

8. **Distribution Restrictions:**

   Limitations imposed on distribution of goods in importing country **involving additional license or certification requirement.** These may relate to **geographical restrictions or restrictions as to the type of agents who may** resell.

   Eg.: a restriction that imported fruits may be sold only through outlets having refrigeration facilities.

9. **Restriction on Post-sales Services:** Producers may be **restricted from providing after-sales services for exported goods** in the importing country. Such services may be reserved to local service companies of the importing country.
10. **Administrative Procedures:** **Costly and time-consuming** administrative procedures which are **mandatory for import of foreign goods. These will increase transaction costs** and **discourage imports.**

    Examples: Specifying particular procedures and formalities, requiring licenses, **administrative delay,** corruption in customs clearing, procedural obstacles linked to prove compliance etc.
11. **Rules of Origin:** **Country of origin means country in which a good was produced,** or home country of service provider. Rules of origin are the criteria needed by governments of importing countries to **determine the national source of product. Duties and restrictions in some cases depend upon source of imports.**
12. **Safeguard Measures:** Measures to restrict imports of a product **temporarily** if its **domestic industry is injured** with **serious injury caused by a surge in imports.** These measures are for **limited time and non-discriminatory.**
13. **Embargos:** An embargo is **total ban** imposed by government **on import or export of some commodities to particular country** for a **specified period**. This may be done due to **political reasons** or for reasons such as **health, religious sentiments.**

    This is **most extreme form** of trade barrier.

NTBs are **discriminatory NTMs,** which are used as means to **circumvent/avoiding free-trade rules** and **favour domestic industries at expense of foreign competition.**

NTBs are thus a subset of NTMs that have a "protectionist or discriminatory intent."

EXPORT-RELATED MEASURERS

These refer to all measures applied by the govt of exporting country including both technical and non-technical measures.

1. Ban on Exports

Eg, during periods of shortages, export of agricultural products such as Wheat, be **prohibited to make them available for domestic consumption.**

2. Export Taxes

An export **tax is a tax collected on exported goods** and may be either **specific or ad valorem.**

The effect of an export tax is raise the price good and to **decrease exports**

It **increases domestic supply,** it also **reduces domestic prices and** leads to **higher domestic consumption.**

3. Export Subsidies and Incentives

Tariffs on imports hurt exports and therefore countries have developed **compensatory measures** of different types for **exporters like export subsidies, duty drawback,** duty free access to imported intermediates etc.

Government usually **Provides financial contribution to domestic producers** in form of **grants, loans,** equity infusions etc. or give some form of **income or price support.**

4. Voluntary Export Restraints (Export quota) (VERS)

They refer to a type of informal quota administered by an exporting country **voluntarily restraining the quantity of goods that can be exported out** of that country during a specified period of time.

Such restraints originate from political considerations.

VERS may arise when the **import competing industries seek protection from a surge of imports** from particular exporting countries.

VERS cause **domestic prices to rise** and cause **loss of domestic consumer surplus.**

Questions

1. Which of the following is not a non-tariff barrier?
- (*a*) Complex documentation requirements
- (*b*) Import quotas on specific goods
- (*c*) Countervailing duties charged by importing country
- (*d*) Pre-shipment product inspection and certification requirements

2. Non-tariff Barriers (NTBs) include all of the following except:
- (*a*) Import quotas
- (*b*) Tariffs
- (*c*) Export subsidies
- (*d*) Technical standards of products

3. SPS measures and TBTs are:
- (*a*) Permissible under WTO to protect the interests of countries.
- (*b*) May result in loss of competitive advantage of developing countries
- (*c*) Increases the costs of compliance to the exporting countries.
- (*d*) All of the above

4. _____ measures of NTMs refer to product-specific properties such as characteristics of the product technical specifications and production processes.
- (*a*) Financial
- (*b*) Standard
- (*c*) Technical
- (*d*) Non-Technical

5. Which of the following is NOT a component of Technical measures under Non-Tariff Measures?
- (*a*) Import Quota
- (*b*) Characteristics of the Product
- (*c*) Technical Specifications
- (*d*) Production Processes

6. Voluntary- export restraints involve:
- (*a*) An importing country voluntarily restraining the quantity of goods that can be exported into the country during a specified period of time
- (*b*) Domestic firms agreeing to limit the quantity- foreign products sold m their domestic markets.

(*c*) An exporting country voluntarily restraining the quantity of goods that can be exported out of a country during a specified period of time.

(*d*) Quantitative restrictions imposed by the importing country's government.

7. Due to shortage in domestic market, Government has prohibited the export of onion. This export related measure can be categorized as

(*a*) Ban' on Exports

(*b*) Export Taxes

(*c*) Export Subsidies

(*d*) Voluntary Export Restraints

8. Which of the following is NOT an example of Technical Barriers to Trade (TBT)?

(*a*) Eco-labelling

(*b*) Quality standard

(*c*) Import quotas

(*d*) Organic certification

9. Which tariff is expressed either on the basis of the value of the imported goods or on the basis of a unit of measure of the imported goods depending on which generates the most income (or least income at times) for the country?

(*a*) Ad valorem tariff

(*b*) Specific tariff

(*c*) Mixed tariff

(*d*) Compound tariff

10. The system wherein the nominal tariff rates on imports of manufactured goods are higher than the nominal tariff rates on intermediate inputs and raw materials is known as _____.

(*a*) Applied tariff

(*b*) Escalated tariff

(*c*) Bound tariff

(*d*) Preferential tariff

11. Which of the following is a measure to protect human, animal or plant life from risks arising out of additives, pests, toxins, etc. and to protect the biodiversity?

(*a*) Prohibited tariff

(*b*) Sanitary and phytosanitary measures

(*c*) Technical barriers to trade

(*d*) Anti-dumping duties

12. TRIM stands for _____.

(*a*) Trade Policy International Mechanism

(*b*) Trade related investment Measures

(*c*) Transparent Reforms Inherent Mechanism

(*d*) None of these

Answers

1. (*c*) **2.** (*b*) **3.** (*d*) **4.** (*c*) **5.** (*a*) **6.** (*c*) **7.** (*a*) **8.** (*c*) **9.** (*c*) **10.** (*b*)
11. (*b*) **12.** (*b*)

REGIONAL TRADE AGREEMENTS (RTAS)

RTAs are defined as **groupings of countries** (not necessarily belonging to the same geographical region), which are formed with the **Objective of Reducing Barriers to trade between member countries.**

As of 1 February 2021, 339 RTAs were in force.

As of 1 December 2024, 373 RTAs were in force.

TYPES OF REGIONAL TRADE AGREEMENTS RTA'S

1. Unilateral Trade Agreements
2. Bilateral Agreements
3. Regional Preferential Trade Agreements
4. Trading Bloc
5. Free Trade Area
6. Customs Union
7. Common Markets
8. Economic and Monetary Union

	Preferential Trade Area	Free Trade Area	Customs Union	Common Market	Economic Union
Lower Barriers	✓				
Eliminate Barriers	–	✓	✓	✓	✓
Common External Barriers	–	–	✓	✓	✓
Free Flow Resources	–	–	–		
Uniform Economic Policies	–	–	–	–	

1. Unilateral Trade Agreements

Under which an **importing country offers incentives** to **encourage the exporting country to improve the exporting country's economy.**

Eg.: Generalized System of Preferences (GSP)



2. Bilateral Agreements



These are the agreements which set rules of trade **between two countries,** two blocs or a bloc and a country. These may be **limited to certain** goods and services or certain types of market entry barriers.

Eg.: EU-South Africa, ASEAN-Indian Free Trade Area.

3. Regional Preferential Trade Agreements

Among a group of countries **reduce trade barriers on a reciprocal and preferential basis** for only the members of the group.

Eg.: Global System of Trade Preferences among Developing Countries (GSTP)

4. Trading Bloc

This is a **group of countries** that have **a free trade agreement** between themselves and may **apply a common external tariff to other countries.**

Eg.: Arab Legue (AL), European Free Trade Association (EFTA)

5. Free-trade area

It refers to a **group of countries that eliminate all tariff and quota barriers** on trade with the objective of increasing exchange of goods with each other. Members **retain independence in determining their tariffs with non-members.**

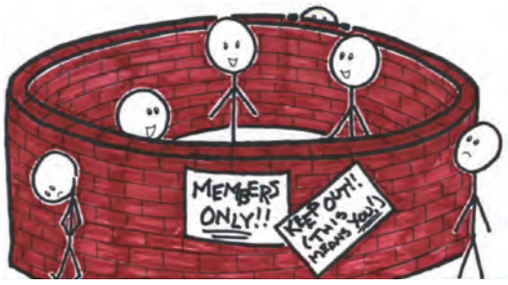
Eg.: NAFTA



6. Customs Union

Is group of countries that eliminate all tariffs on trade among themselves but **maintain a common external tariff on trade with countries outside the union** (thus, technically violating MFN).

Eg.: European Union etc.



7. Common Market

t deepens a customs union by providing for the free **flow of output and of factors of production** (labour, capital and other productive resources) by reducing or **eliminating internal tariffs** on goods and **by creating a common set of external tariffs.**

There are also **common barriers against non-members.**

Eg., EU, ASEAN

8. Economic and Monetary Union

Here members share a common currency. Adoption of **common currency** also makes it necessary to have a strong convergence in macroeconomic policies.

For eg., European Union countries adopt a single currency.

- The recent years have seen intense bilateral and multilateral negotiations among different nations in the international arena.
- India, for example, has already become part of 19 such concluded agreements and is currently negotiating more than two dozens of such proposals.
- Major events in the year 2020, such as Britain's exit from the European Union, the new free trade agreement [which is a successor of the North American Free Trade Agreement **(NAFTA)]** concluded between Canada, Mexico, and United States, namely United States–Mexico–Canada Agreement **(USMCA).**
- Many other unpredictable developments in the trade front due to trade war between the US and China and the global pandemic, make trade negotiations a highly relevant area of study.



Questions

1. Which of the following. consists of a group of countries that have a free trade agreement among themselves and may apply a common external tariff to other countries? **[Sep.2025]**

(*a*) Free-trade area

(*b*) Regional Preferential Trade Agreements

(*c*) Economic and Monetary Union

(*d*) Trading Bloc

2. With regards to international trade the European Union can be categorized as a_____
   (*a*) Trading bloc
   (*b*) Free trade area
   (*c*) Bilateral Agreements
   (*d*) Customs Union
3. Which of these countries is part of the USMCA Agreement?
   (*a*) Mexico
   (*b*) Malta
   (*c*) Malaysia
   (*d*) Mongolia

Answers

1. (*d*) **2.** (*d*) **3.** (*a*)

GATT

- The General Agreement on Tariffs and Trade (GATT) covers international trade in goods. The workings of the GATT agreement are the responsibility of the Council for Trade in Goods (Goods Council) which is made up of representatives from all WTO member countries.
- The Goods Council has 10 committees dealing with specific subjects (such as agriculture, market access, subsidies, anti-dumping measures, and so on). Again, these committees consist of all member countries.

GATT Lost its Relevance By 1980s

1. It was **obsolete/outdated to fast-evolving complex world trade** scenario
2. **International investments** had expanded substantially
3. **Intellectual property rights** and trade in **services** were **not covered**
4. **World merchandise trade increased by leaps and bounds** and was beyond its scope.
5. The **ambiguities** in the **multilateral system** could be heavily exploited
6. Efforts at **liberalizing agricultural trade** were **not successful**
7. There were **inadequacies in institutional structure** and dispute settlement system
8. It was **not a treaty** and therefore terms of GATT were binding only insofar as they are not incoherent with a nation's domestic rules.

Question

1. Which one of these is the main reason why GATT lost its relevance by 1980? **[Sep.2025]**
   (*a*) Efforts at liberalizing agricultural trade were successful
   (*b*) International investments did not expand substantially
   (*c*) GATT was a treaty
   (*d*) There were inadequacies in institutional structure and dispute settlement system

Answer

1. (*d*)

THE URUGUAY ROUND AND THE ESTABLISHMENT OF WTO

- The Round started in Punta del Este in Uruguay in September 1986 and was scheduled to be completed by December 1990.
- However, due to many differences and especially due to heated controversies over agriculture, no consensus/conclusion was arrived at.
- Finally, in December 1993, the Uruguay Round, the eighth and the most ambitious and largest ever round of multilateral trade negotiations in which 123 countries participated, was completed after seven years of elaborate negotiations.
- The agreement was signed by most countries on April 15, 1994, and took effect on July 1, 1995.
- It also marked the birth of the World Trade Organization (WTO) which is the single institutional framework encompassing the GATT, as modified by the Uruguay Round.
- The Uruguay Round brought about the biggest reform of the world's trading system.
- **Members established 15 groups** to work on **limiting restrictions** in the areas of tariffs, non-tariff barriers, tropical products, natural resource products, textiles and clothing, agriculture, safeguards against sudden 'surges' in imports, subsidies, countervailing duties, trade related intellectual property restrictions, trade related investment restrictions.
- The **agreement was signed by most countries on April 15, 1994,** and took effect on **July 1, 1995.**



STRUCTURE OF THE WTO



- The WTO activities are supported by a **Secretariat** located in **Geneva**, headed by a **Director General.**
- It has a **three-tier system of decision making**

1st Level (Top-Level)	**Ministerial Conference**	❑ It takes decisions on all matters under any of the multilateral trade agreements. ❑ It meets at least once every two years
2nd Level	**General Council**	❑ It meets several times a year at the Geneva headquarters. ❑ It also meets as the Trade Policy Review Body and the Dispute Settlement Body.
3rd Level	**Goods Council, Services Council and Intellectual Property Council**	❑ These councils report to the General Council and are responsible for overseeing the implementation of the WTO agreements in their respective areas of specialization.

Objectives of WTO

The principal objective of the WTO is to **facilitate the flow of international trade** smoothly, freely, fairly and predictably.

The WTO has **six key objectives**.

1. to set and enforce **rules** for international trade
2. to provide a **forum** for **negotiating and monitoring further trade liberalization**
3. to **resolve trade disputes**
4. to **increase** the **transparency of decision-making processes**
5. to **cooperate with other major international economic institutions** involved in global economic management, and
6. to **help developing countries** benefit fully from the global trading system.

The **objectives** of the WTO Agreements given in **preamble of Agreement Creating WTO.**

- Raising standards of living.
- Ensuring full employment and a growth of real income and effective demand, and
- Expanding the production of and trade in Goods and Services.

Questions

1. The Ministerial conference, top decision making body of WTO, meets at least _____ to take decisions.
   (*a*) Once every year
   (*b*) Twice every year
   (*c*) Once every two years
   (*d*) No such fixed frequency

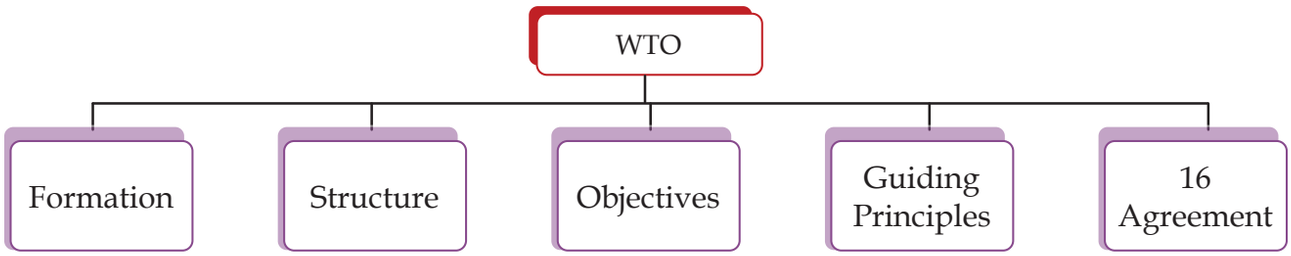
2. The WTO's top-level decision-making body is the _____ which can takes decisions an all matters under any of the multilateral trade agreements.
   (*a*) Ministerial conference
   (*b*) General Council
   (*c*) Goods council
   (*d*) Services council and intellectual Property council
3. Which of the following meets several times a year at the Geneva headquarters?
   (*a*) Ministerial Conference
   (*b*) General Council
   (*c*) Goods Council
   (*d*) Services Council
4. The Goods Council, Services Council and Intellectual Property Council report to which of the following?
   (*a*) Ministerial Conference
   (*b*) General Council
   (*c*) Director General of WTO
   (*d*) Both (*a*) and (*b*)

Answers

1. (*c*) **2.** (*a*) **3.** (*b*) **4.** (*b*)

The WTO accounting for about (95% of world trade currently has 164 members out of which (117) are developing countries or separate custom territories and around 24 countries are negotiating membership.

WTO trade monitoring reports are prepared by the WTO secretariat since 2009.



IMPORTANT GUIDING PRINCIPLES

Trade Without Discrimination

1. **MFN:** This principle states that **any advantage** or immunity **granted by any one country to other,** shall be **extended immediately and unconditionally** to **like product originating from other countries.**

   Under the WTO agreements, if a country lowers a trade barrier or opens up a market for one country, it has to do so for the same for all other WTO members.

This principle belongs to the first article of GATT

MFN is also a priority in General agreement on trade in services (GATS - Article 2) and article 4 of trade related aspects of intellectual property rights (TRIPS)

2. **National Treatment:** A country should **not discriminate between its own and foreign. Give others same treatment as one's own nationals.**

   Treating foreign and locals equally. Imported and locally-produced goods should be treated equally — at least after the foreign goods have entered the market.

   The same should apply to foreign and domestic services, and to foreign and local trademarks, copyrights and patents. This principle is also found in all the three main WTO agreements (Article 3 of GATT, Article 17 of GATS and Article 3 of TRIPS).

Encouraging Development and Economic Reform

Lowering trade barriers is one of the most obvious means of encouraging trade. The barriers concerned include customs duties (or tariffs) and measures such as import bans or quotas that restrict quantities selectively. From time to time other issues such as red tape and exchange rate policies have also been discussed.

The WTO agreements allow countries to introduce changes gradually, through "progressive liberalization".

Developing countries are usually given longer to fulfil their obligations.

Predictability: Through Binding and Transparency

Sometimes, promising not to raise a trade barrier can be as important as lowering one, because the promise gives businesses a clearer view of their future opportunities.

With stability and predictability, investment is encouraged, jobs are created and consumers can fully enjoy the benefits of competition -choice and lower prices.

Promoting Fair Competition

The WTO is sometimes described as a "free trade" institution, but that is not entirely accurate.

The system does allow tariffs and, in limited circumstances, other forms of protection. More accurately, it is a system of rules dedicated to open, fair, and undistorted competition.

Encouraging Development and Economic Reform

The WTO system contributes to development of developing countries by giving them extra time or transition period to adjust to more unfamiliar and difficult WTO provisions - particularly to the poorest and least developed countries.

WTO AGREEMENTS

WTO Agreements Covers Three Things Namely

1. Goods
2. Services

3. Intellectual Property

These agreements are called WTO rules and

WTO is known as "rule-based" organization because of these rules.

Overview of the WTO Agreements

1. Agreement on Agriculture aims at strengthening GATT principles and agricultural trade. This agreement is related with commitment of WTO members in **three areas of market access, domestic support and export subsidies.**
2. Agreement on Application of Sanitary and Phytosanitary (SPS) Measures
3. **Agreement on Textiles and Clothing (ATC) Replaced** the Multi-fiber arrangement (MFA) which was prevalent since 1974. ATC provides that textile trade should be deregulated by gradually integrating it into GATT discipline over a 10 year transition period.
4. Agreement on Technical Barriers to Trade **(TBT)**
5. Agreement on Trade-Related investment Measures **(TRIMS)** Investment it states countries receiving foreign investment should not investment measures like requirement, conditions and restrictions.
6. Anti-Dumping Agreement
7. Customs Valuation Agreement
8. Agreement on Pre-shipment Inspection (PSI)
9. Agreement on Rules of Origin
10. Agreement on Import Licensing Procedures
11. Agreement on Subsidies and Countervailing Measures like CVD
12. Agreement on Safeguards
13. General Agreement on Trade in Services (GATS)
14. Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) - there should be same rules for all country's intellectual properties i.e. copyright, patent, geographical indication (GI-Tag), industrial designs, etc. It confirms the following of MFN and national treatment principle.
15. Trade Policy Review Mechanism (TPRM) - provides the procedure of reviewing of trade policy
16. Plurilateral Trade Agreements - multilateral agreement involves all WTO countries whereas plurilateral agreements involve several countries with common interest but do not involve all WTO members.

Questions

1. The Agreement on Agriculture includes explicit and binding commitments made by WTO Member governments
   (*a*) On increasing agricultural productivity and rural development
   (*b*) Market access and agricultural credit support

(*c*) Market access, domestic support and export subsidies

(*d*) Market access, import subsidies and export subsidies

2. The Agreement on Textiles and Clothing

(*a*) Provides that textile trade should be deregulated gradually and the tariffs should be increased

(*b*) Replaced the Multi-Fiber Arrangement (MFA) which was prevalent since 1974

(*c*) Granted rights of textile exporting countries to increase tariffs to protect their domestic textile industries

(*d*) Stipulated that tariffs in all countries should be the same

Answers

1. (*c*) **2.** (*b*)

These agreements are not static they are negotiated from time to time and new agreements evolve from negotiation.

Many agreements were negotiated under the Doha development agenda launched by WTO ministers in Doha, Qatar, in November 2001.

THE DOHA ROUND

- The Doha Round was 9th round since Second World War was officially launched at the WTO's Fourth Ministerial Conference in Doha, Qatar, in Nov 2001.
- The round seeks to accomplish major modifications of the international trading system through lower trade barriers and revised trade rules.
- **The negotiations include 20 areas of trade.**
- **Most controversial topic here was agriculture trade.**

Questions

1. The most controversial topic in the yet to conclude Doha Agenda is

(*a*) Trade in manufactured goods

(*b*) Trade in intellectual property rights-based goods

(*c*) Trade in agricultural goods

(*d*) Market access to goods from developed countries

2. The most controversial topic for Doha Development Agenda was **(May 2025)**

(*a*) The Labor Welfare

(*b*) World Peace

(*c*) Globalization

(*d*) Agriculture Trade

Answers

1. (*c*) **2.** (*d*)

G20 ECONOMIES: FACILITATING TRADE

Group of 20 Countries → G-20 Countries

G20 members are: Argentina; Australia; Brazil; Canada; China; the European Union; France; Germany; India; Indonesia; Italy; Japan; the Republic of Korea; Mexico; the Russian Federation; Saudi Arabia; South Africa; Türkiye; the United Kingdom; and the United States.

1. **G-20 trade-facilitating measures increased** between mid-October 2021 and mid-October 2022.
2. Report shows **more import-facilitating measures than import-restrictive measures** during the period.
3. **Supply chains are improving** after disruptions caused by the pandemic.
4. Increase in inflation led many G-20 economies to take **precautionary trade policy actions.**
5. **Flexibility in trade policies** was needed due to:
   - Rising inflation
   - Uneven economic recovery
   - Geopolitical tensions

Export restrictions by G-20 increased since 2020 due to pandemic and Russia-Ukrain war – especially **in food, feed, and fertilisers.**

As of **mid-October 2022,** WTO had **52 export restrictions** placed by G-20 on **food, feed and fertilizers.**

In addition to this, WTO also noted **27 export restrictions** on products important for **COVID-19 containment.** Of these **52 export restrictions:**

44% were on food, feed and fertilizers

63% on pandemic related export

- While some **trade-restrictive measures have been lifted by G20 countries,** the report indicates that the **trend has been going in the wrong direction.** Export **restrictions contribute** to **shortages, price volatility,** and **uncertainty.**
- The report indicates that **supply chains** on the whole have thus far proved to be **resilient,** despite the **war in Ukraine,** the continuing **impacts of the COVID-19 pandemic,** the **highest inflation many countries have experienced** in decades, and the **impacts of monetary tightening** by central banks seeking to **limit price increases.** That said, specific industries and regions have been differently impacted.
- Since the beginning of the pandemic, **201 COVID-19 trade and trade- related measures in goods were implemented by G20 economies.** Most (61%) were trade facilitating, while the rest (39%) could be considered trade restrictive.
- G20 economies also continued to phase out pandemic-related import and export measures. By mid-October 2022, **77% of export restrictions had been repealed, leaving 17 restrictions in place.** Although the number of the pandemic-related trade restrictions in place decreased, their trade coverage remained significant, at **USD 122.0 billion.**
- Pandemic-related **import-support measures** mainly covered:

- Personal Protective Equipment (PPE)
- Pharmaceutical products
- Medical equipment
- Some pandemic-related trade restrictions were **still not rolled back** by 2022.
- From 2009 to 2022, top initiators of anti-dumping investigations among G-20:
- **India, USA, Argentina**
- Between 2020–2021, largest number of trade-remedy investigations were initiated by:
- **India, EU, Brazil, Argentina**

Questions

1. The 'National treatment' principle stands for
   (*a*) The procedures within the WTO for resolving disagreements about trade policy among countries
   (*b*) The principle that imported products are to be treated no worse in the domestic market than the local ones
   (*c*) Exported products are to be treated no worse in the domestic market than the local ones
   (*d*) Imported products should have the same tariff, no matter where they are imported from

2. The essence of 'MEN principle' is
   (*a*) Equality of treatment of all member countries of WTO in respect of matters related to trade
   (*b*) Favour one, country, you need to favour all in the same manner
   (*c*) Every WTO member will treat all its trading partners equally without any prejudice and discrimination
   (*d*) All the above

3. The Agreement on Trade-Related Aspects of Intellectual Property Rights.
   (*a*) Stipulates to administer a system of enforcement of intellectual property rights
   (*b*) Provides for most-favoured-nation treatment and national treatment for intellectual properties
   (*c*) Mandates to maintain high levels of intellectual property protection by all members
   (*d*) All the above

4. The WTO Commitments
   (*a*) Affect developed countries adversely because they have comparatively less agricultural goods
   (*b*) Affect developing countries more because they need to make radical adjustments
   (*c*) Affect both developed and developing countries equally
   (*d*) Affect none as they increase world trade and ensure prosperity to all

Answers

1. (*b*) **2.** (*d*) **3.** (*d*) **4.** (*b*)

FOREIGN CURRENCY


USD ($)



EURO



Ruble's



Yuan



Home/Domestic Currency OR Local Currency

A FOREIGN CURRENCY TRANSACTION

A foreign currency transaction is a transaction that is denominated in or requires settlement in a foreign currency. Foreign transactions arises when an enterprise either:

(a) buys or sells goods or services whose price is denominated in a foreign currency.

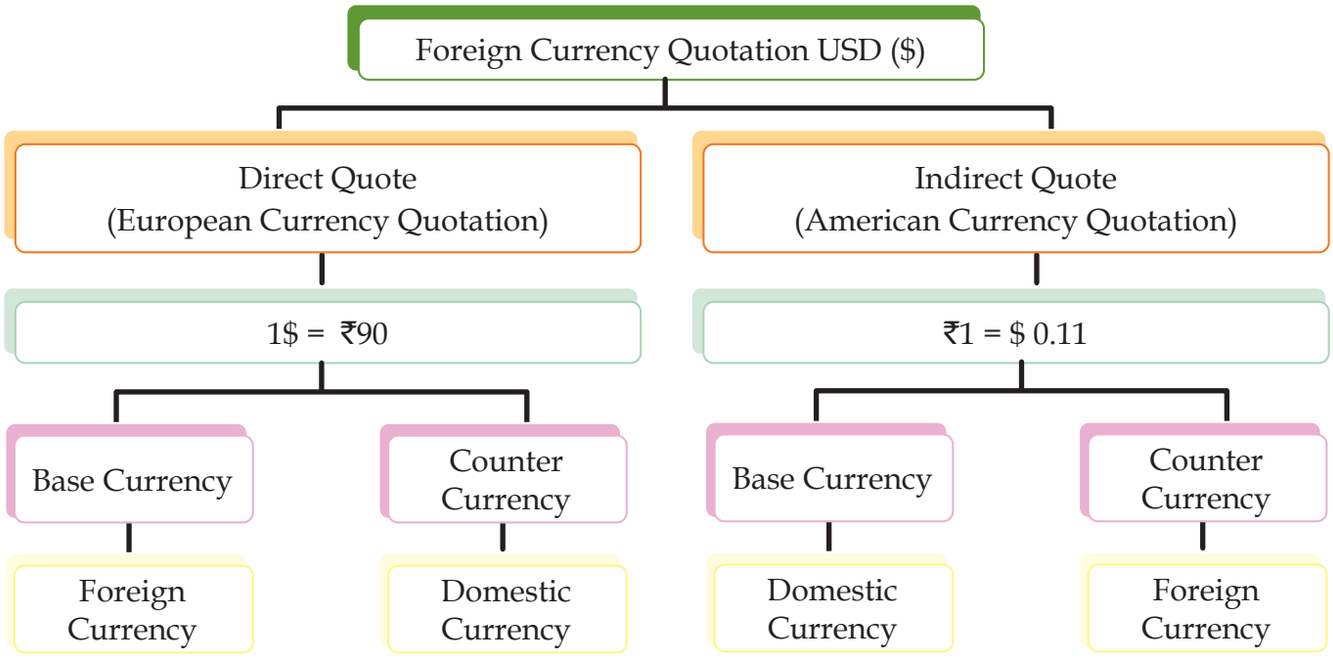
(b) borrows or lends funds when the amounts payable or receivable are denominated in a foreign currency.

(c) otherwise acquires or disposes of assets, or incurs or settles liabilities, denominated in a foreign currency.

Foreign Exchange ⇒ **forex or foreign Ex**

⇓

Foreign Currency



1. Exchange rate is the rate at which the currency of one country exchanges for the currency of another country.
2. A direct quote **(European Currency Quotation)** is the number of units of a local currency exchangeable for one unit of a foreign currency. For example, 90:1 for $.
3. An indirect quote **(American Currency Quotation)** is the number of units of a foreign currency exchangeable for one unit of local currency; for example: $ 0.011 per rupee.
4. In a direct quotation, the foreign currency is the base currency and the domestic currency is the counter currency.
5. In an indirect quotation, the domestic currency is the base currency and the foreign currency is the counter currency.

Question

1. Choose the correct statement
   (*a*) An indirect quote is the number of units of a local currency exchangeable for one unit of a foreign currency
   (*b*) The fixed exchange rate regime is said to be efficient and highly transparent
   (*c*) Direct quote is the number of units of a local currency exchangeable for one unit of a foreign currency
   (*d*) Exchange rates are generally fixed by the central bank of the country

Answer

1. (*c*)

WHO DECIDES THE FOREIGN EEXCHANGE RATE REGIMES/TYPES

There are **three** broad categories of exchange rate systems.

1. Floating Exchange rate system (Clean Floating)

In this system, **exchange rates are set purely by private market** forces with no **government involvement.** Values change constantly as the demand and supply of currencies fluctuate.

2. Fixed Exchange rate/Pegged system (Hard Peg)

In this system, **governments may seek to fix the values of their currencies,** either **through participation** in the market or through regulatory policy.

3. Managed floating Exchange rate system □ Dirty Floating (Soft Peg)

In this system, **currency values are allowed to change,** but **governments participate in currency markets** in an effort to influence those values.

FREE-FLOATING EXCHANGE RATE SYSTEM

- In a free-floating exchange rate system, governments and central banks do not interfere in the foreign exchange market.
- It operates similarly to how governments and institutions interact with stock markets with minimal regulation to prevent fraud.
- Advantages of a free-floating system include self-regulation and the ability to act as a buffer against external shocks. For example, increased demand for Canadian goods can raise the Canadian dollar's value, making their products more expensive for foreigners.

Advantages of Floating Exchange Rate System

1. A floating exchange rate has the greatest advantage of allowing a Central bank and/or government to pursue its own independent monetary policy.
2. Floating exchange rate regime allows exchange rate to be used as a policy tool: for example, policy-makers can adjust the nominal exchange rate to influence the competitiveness of the tradable goods sector.
3. As there is no obligation or necessity to intervene in the currency markets, the central bank is not required to maintain a huge foreign exchange reserves.

Disadvantages of Floating Exchange Rate System

- However, the main **drawback** is the unpredictability of exchange rates, Businesses must account for potential rate changes in their contracts, making international transactions riskier and increasing the cost of doing business with other countries.
- However, the greatest disadvantage of a flexible exchange rate regime is that volatile exchange rates generate a lot of uncertainties in relation to international transactions and add a risk premium to the costs of goods and assets traded across borders. In short, a fixed rate brings in more currency and monetary stability and credibility; but it lacks flexibility. On the contrary, a floating rate has greater policy flexibility; but less stability.

MANAGED FLOAT SYSTEMS

Governments and central banks often seek to increase or decrease their exchange rates by buying or selling their own currencies. Exchange rates are still free to float, but governments try to influence their values. Government or central bank participation in a floating exchange rate system is called a managed float.

FIXED EXCHANGE REGIME

In an open economy, the main advantages of a fixed rate regime are:

1. A fixed exchange rate avoids currency fluctuations and eliminates exchange rate risks and transaction costs that can impede international flow of trade and investments. International trade and investment are less risky under fixed rate regime as profits are not affected by the exchange rate fluctuations.
2. A fixed exchange rate can thus, greatly enhance international trade and investment.
3. A reduction in speculation on exchange rate movements if everyone believes that exchange rates will not change.
4. A fixed exchange rate system imposes discipline on a country's monetary authority and therefore is more likely to generate lower levels of inflation.
5. The government can encourage greater trade and investment as stability encourages investment.
6. Exchange rate peg can also enhance the credibility of the country's monetary-policy.
7. However, in the fixed or managed floating exchange rate regimes (where the market forces are allowed to determine the exchange rate within a band), the central bank is required to stand ready to intervene in the foreign exchange market and, also to maintain an adequate amount of foreign exchange reserves for this purpose.

Question

1. Which of the following is not the advantage of a fixed exchange rate regime ? **(Sept.2025)**

(*a*) An increase in speculation on exchange rate movements

(*b*) Enhances international trade and investment

(*c*) Avoids currency fluctuations and eliminates exchange rate risks

(*d*) Enhances the credibility of the country's monetary policy

Answer

1. (*a*)

THE FOREIGN EXCHANGE MARKET

- The participants in the foreign exchange (Forex) market include commercial banks, brokerage houses, exporters, importers, investment institutions, insurance and retirement funds, hedgers, and private investors.
- Commercial banks often engage in speculative currency trading and play a major role in the market. Brokerage houses act as intermediaries between various market players. They, along with commercial banks, are referred to as **market makers because they influence price formation.**
- **Passive market players** do not set their own exchange rates but engage in Forex transactions for purposes like international trade, investment, tourism, speculation, and hedging against currency risks.

Determination of Nominal Exchange

1. Buying goods and services from foreign countries.

2. Conducting unilateral transfers, such as gifts, awards, grants, donations or endowments.

3. Making investment income payments to foreign entities.

4. Investing in foreign financial assets, such as stocks or bonds.

5. Opening foreign bank accounts.

6. Acquiring direct ownership of real capital in other countries.

7. Engaging in speculation and hedging activities to manage risk associated with currency fluctuations.

SUPPLY OF FOREX /COMES FROM

1. Exports of goods and services

2. Conducting unilateral transfers, such as gifts, awards, grants, donations, or endowments

3. Receiving investment income from foreign entities.

4. Investment made by foreign countries

5. Placement of bank deposits by foreigners

6. Loans paid by foreign Country

7. Speculation and hedging activities

DETERMINATION OF NOMINAL EXCHANGE

The external value of a domestic currency, or its exchange rate, is primarily determined by the forces of supply and demand in the domestic foreign exchange market.

In this market, the supply and demand for foreign exchange play a crucial role in shaping the currency's value in relation to other currencies.

Questions

1. An increase in the supply of foreign exchange

(*a*) Shifts the supply curve to the right and as a consequence, the exchange rate

(*b*) Shifts the supply curve to the right and as a consequence, the exchange rate increases

(*c*) More units of domestic currency are required to buy a unit of foreign exchange

(*d*) The domestic currency depreciates and the foreign currency appreciates

2. All else equal, which of the following is true if consumers of India develop taste for imported commodities and decide to buy more from the US?

(*a*) The demand curve for dollars shifts to the right and Indian Rupee appreciates

(*b*) The supply of US dollars shrinks and, therefore, import prices decrease

(*c*) The demand curve for dollars shifts to the right and Indian Rupee depreciates

(*d*) The demand curve for dollars shifts to the left & leads to an increase in exchange rate

3. Currency devaluation

(*a*) May increase the price of imported commodities and, therefore, reduce the international competitiveness of domestic industries

(*b*) May reduce export prices and increase the international competitiveness of domestic industries

(*c*) May cause a fall in the volume of exports and promote consumer welfare through increased availability of goods and services

(*d*) (*a*) and (*c*) above

4. 'Vehicle Currency' refers to

(*a*) A currency that is widely used to denominate international contracts made by parties because it is the national currency of either of the parties

(*b*) Currency that is traded internationally and, therefore, is in high demand

(*c*) A type of currency used in euro area for synchronization of exchange rates

(*d*) A currency that is widely used to denominate international contracts made by parties even when it is not the national currency of either of the parties

5. Country 'X' has seen an increase in its Real Effective Exchange Rate (REER). As a result, Country 'X's goods are becoming more expensive for foreign buyers, and imports from other countries are becoming cheaper. What is the likely impact on Country 'X's economy?

(Sept. 2025)

(*a*) Exports from Country 'X' will increase

(*b*) Imports to Country 'X' will become more expensive

(*c*) Exports from Country 'X' will become less competitive

(*d*) Imports to Country 'X' will decrease

6. Which of the following statements is true?

(*a*) Home-currency appreciation or foreign-currency depreciation takes place when there is a decrease in the home currency price of foreign currency

(*b*) Home-currency depreciation takes place when there is an increase in the home currency price of the foreign currency

(*c*) Home-currency depreciation is the same as foreign-currency appreciation and implies that the home currency has become relatively less valuable

(*d*) All the above

7. All else equal, which of the following is true if consumers of India develop taste for imported commodities and decide to buy more from the US?

(*a*) The demand curve for dollars shifts to the right and Indian Rupee appreciates

(*b*) The supply of US dollars shrinks and, therefore, import prices decrease

(*c*) The demand curve for dollars shifts to the right and Indian Rupee depreciates

(*d*) The demand curve for dollars shifts to the left and leads to an increase in exchange rate

8. Based on the supply and demand model of determination of exchange rate, which of the following ought to cause the domestic currency of Country X to appreciate against dollar?

(*a*) The US decides not to import from Country X

(*b*) An increase in remittances from the employees who are employed abroad to their families in the home country

(*c*) Increased imports by consumers of Country X

(*d*) Repayment of foreign debts by Country X

Answers

1. (*a*) **2.** (*c*) **3.** (*b*) **4.** (*d*) **5.** (*d*) **6.** (*d*) **7.** (*c*) **8.** (*b*)

IMPACTS OF EXCHANGE RATE FLUCTUATIONS ON DOMESTIC ECONOMY

Impact	Description
Trade Effects	Fluctuations in exchange rate Determines the extent and nature of trade by influencing export and import.
Price Changes	Affects relative prices of domestic and foreign goods, shifting demand patterns. Appreciation raises relative price of exports and lowers import price. depreciation reduces relative price of exports and increases relative price of imports.
Economic Activity	Depreciation makes foreign goods expensive, encouraging domestic consumption.
Export Gains	Economies with high exports benefit from currency depreciation.it will have positive impact on employment and wages of labour intensive exporting country.

Impact	Description
Inflation	Depreciation raises import costs of inputs and consumer goods, increasing inflation.
Fiscal Health	Affects current account balance through export earnings and import costs.
Foreign Debt and interest Burden	Depreciation increases repayment costs for companies and governments with foreign loans. It increases the repayment amount.
Financial Forecasting	Currency volatility makes planning and hedging more complex for businesses.
Investment Risks	Depreciation hits investor sentiment and has radical impact on international capital flows.
Foreign Direct Investment (FDI)	High exchange rate volatility discourages foreign investors

Consequences of Currency Appreciation on the Real Economy

1. **Reduced Exports:** Higher export prices lead to a decline in export quantity.
2. **Business Cycle Impact:** During a recession (here economy wants increasing demand), appreciation worsens aggregate demand and unemployment.
3. **Lower Inflation:** Cheaper imports help reduce inflation.
4. **Reduced Competitiveness:** Domestic firms face challenges but may adopt cost-cutting innovations.
5. **Current Account Deficit:** Higher imports and lower exports worsen trade balance.
6. Loss of competitiveness will be insignificant if Appreciation occurred due to a strong fundamentals of economy.

In the Foreign Exchange Market, Transactions Fall into Two Main Categories

1. **Current Transactions:** These occur in the spot market and involve immediate delivery of the currencies being exchanged.
2. **Future Transactions:** These transactions are based on contracts to buy or sell currencies for future delivery. They take place in the forward and/or futures markets, allowing parties to agree on exchange rates for a future date.
   - **Currency forward contracts =** They are quoted just like spot rate; however, the actual delivery of currencies takes place at specified time in future Eg-When a party agrees to sell euro for dollars on a future date at forward rate agreed upon, he has 'sold euros forward' and 'bought dollars forward'.
   - **Forward Premium =** Forward exchange rate > spot exchange rates
   - **Forward Discount =** Forward exchange rate < spot exchange rates
   - **Vehicle Currency =** While a foreign exchange transaction can involve any two currencies, most transactions involve exchanges of foreign currencies for the U.S. dollars even when it is not the national currency of either the importer or the exporter. On account of its critical role in the forex markets, the dollar is often called a **'vehicle currency'.**

Questions

1. Math the following by choosing the term which has the same meaning

(i) Floating exchange rate	(*a*) Fixed exchange rate
(ii) Pegged exchange rate	(*b*) Depreciation
(iii) Devaluation	(*c*) Revaluation
(iv) appreciation	(*d*) Flexible exchange rate

(*a*) (i-c); (ii-d); (iii-b); (iv-a)
(*b*) (i-b); (ii-a); (iii-d); (iv-c)
(*c*) (i-a); (ii-d); (iii-b); (iv-c)
(*d*) (i-d); (ii-a); (iii-b); (iv-c)

2. An appreciation of currency or strong currency makes the domestic currency more _____ therefore it can be exchanged for a _____ amount of foreign currency. **(May 2025)**

(*a*) Weaker, smaller
(*b*) Valuable, larger
(*c*) Weaker, larger
(*d*) Valuable, smaller

Answers

1. (*d*) **2.** (*b*)

NOMINAL VERSUS REAL EXCHANGE RATES

Nominal Exchange Rate (NER)	Real Exchange Rate (RER)
It refers to the rate which a person can trade the currency of one country for the currency of another country	It is the rate at which a person can trade goods & services of the one country for goods and services of another country
For any country there are many nominal exchange rates because its currency can be used to purchase many foreign currencies.	It describes 'how many' of a good or service in one country can be traded for 'one' of the good or service in a foreign country. **Trade flows are affected by RER.**

$$\text{Real Exchange Rate (RER)} = \frac{(\text{Norminal Exchange Rate}) \times \text{Foreign Price}}{\text{Domestic Price Index}}$$

$$\text{Real Exchange Rate} = \text{Nominal Exchange Rate} \times \frac{\text{Foreign Price Index}}{\text{Domestic Price Index}}$$

(RER) between two currencies is the produce of the nominal exchange rate and the ratio of prices between the two countries.

It is calculated as:

$$\text{Real Exchange Rate} = \frac{(\text{Norminal Exchange Rate}) \times \text{Domestric Price}}{\text{Foreign Price}}$$

OR

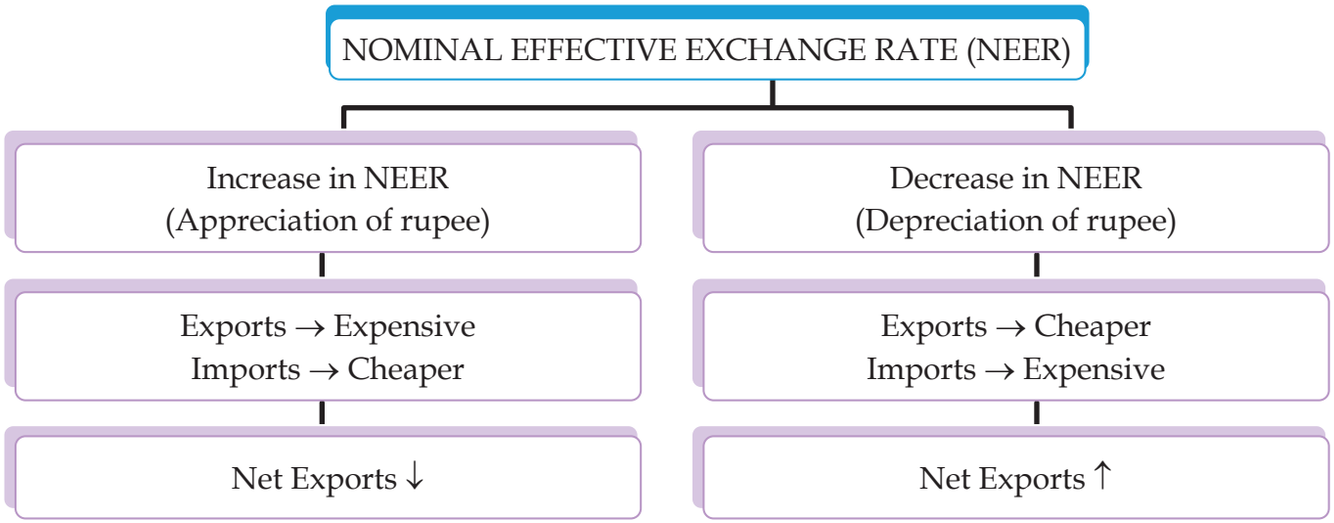
$$\text{Real Exchange Rate} = (\text{Norminal Exchange Rate}) \times \frac{\text{Domestric Price}}{\text{Foreign Price}}$$

Thus, real exchange rate depends on the nominal exchange rate and the prices of the good in two countries measured in the local currencies.

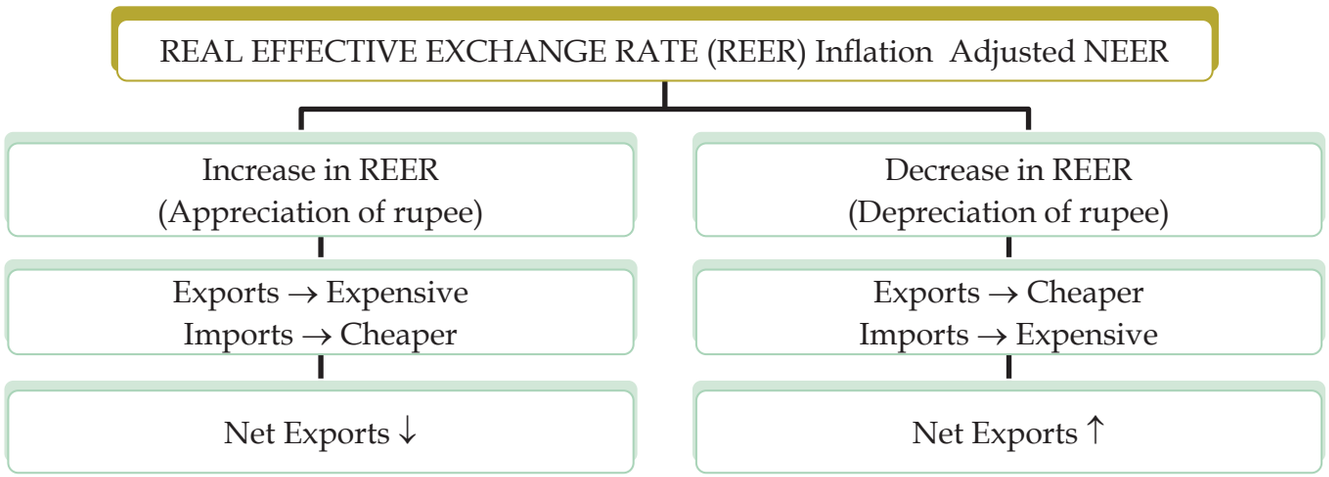
When studying the economy as whole, we use price indices which measure the price of a basket of goods and services. Real exchange rate will then be:

$$\textbf{Real Exchange Rate} = (\text{Norminal Exchange Rate}) \times \frac{\textbf{Domestric Price Index}}{\textbf{Foreign Price Index}}$$

Nominal Effective Exchange Rate (NEER)



Real Effective Exchange Rate (REER)



The Real Effective Exchange Rate (REER) is the nominal effective exchange rate (NEER) divided by a price deflator or index of costs.

An increase in REER implies that exports become more expensive and imports become cheaper; therefore, an increase in REER indicates a loss in trade competitiveness

$$\text{REER} = \frac{\text{Nominal Effective Exchange Rate}}{\text{Price Deflator}}$$

$$\text{REER} = \frac{\text{Nominal Effective Exchange Rate}}{\text{Index of costs}}$$

Question

1. An increase in Real Effective Exchange Rate (REER) implies that _____.

(*a*) Exports become more expensive
(*b*) Imports become cheaper
(*c*) Both (*a*) and (*b*)
(*d*) Neither (*a*) nor (*b*)

Answer

1. (*c*)

The rate between Y and Z which is derived from the given rates of another set of two pairs of currency (say, X and Y and X and Z) is called **cross rate.**

ARBITRAGE

Arbitrage refers to the practice of making riskless profits by intelligently exploiting price differences of an asset at different dealing places.

Questions

1. 'The nominal exchange rate is expressed in units of one currency per unit of the other currency. A real exchange rate adjusts this for change in price levels'. The statements are

(*a*) Wholly correct
(*b*) Partially correct
(*c*) Wholly incorrect
(*d*) None of the above

2. Country 'X' has. seen an increase in its Real Effective Exchange Rate (REER). As a result, Country 'X's goods are becoming more expensive for foreign buyers, and imports from other countries are becoming cheaper. What is the likely impact on Country 'X's economy? **(Sept. 2025)**

(*a*) Exports from Country 'X' will increase
(*b*) Imports to Country 'X' will become more expensive
(*c*) Exports from Country 'X' will become less competitive
(*d*) Imports to Country 'X' will decrease

3. At any point of time, all markets tend to have the same exchange rate for a given currency due to

(*a*) Hedging
(*b*) Speculation
(*c*) Arbitrage
(*d*) Currency futures

Answers

1. (*a*) **2.** (*c*) **3.** (*c*)

INTRODUCTION

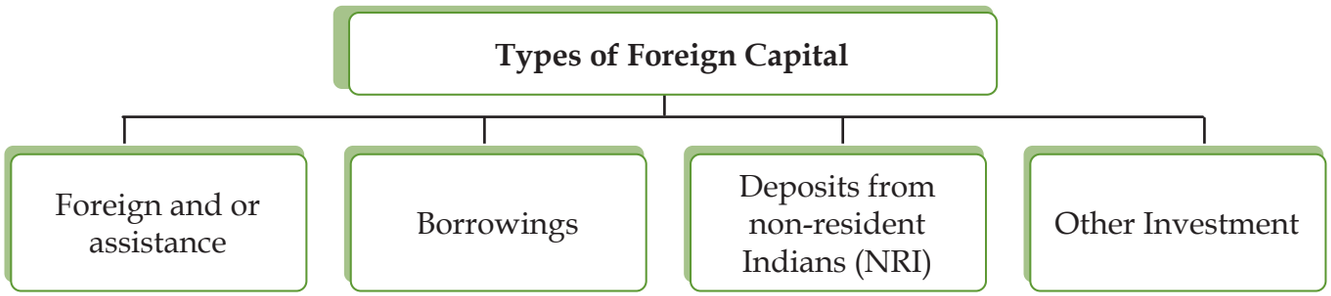
In unit one, our focus was on international trade in goods and services. Lately, we have observed enormous increase in international movement of capital. This phenomenon has received a great deal of attention not only from economists and policy-makers, but also from people in different walks of life- including workers' organizations and members of the civil society. In this unit, we shall look into international capital movements; more precisely, why do capital move across national boundaries and what are the consequences of such capital movements. We shall also briefly touch upon the FDI situation in India.

FOREIGN CAPITAL

The term 'foreign capital' means **inflow of capital into the home country from abroad.**

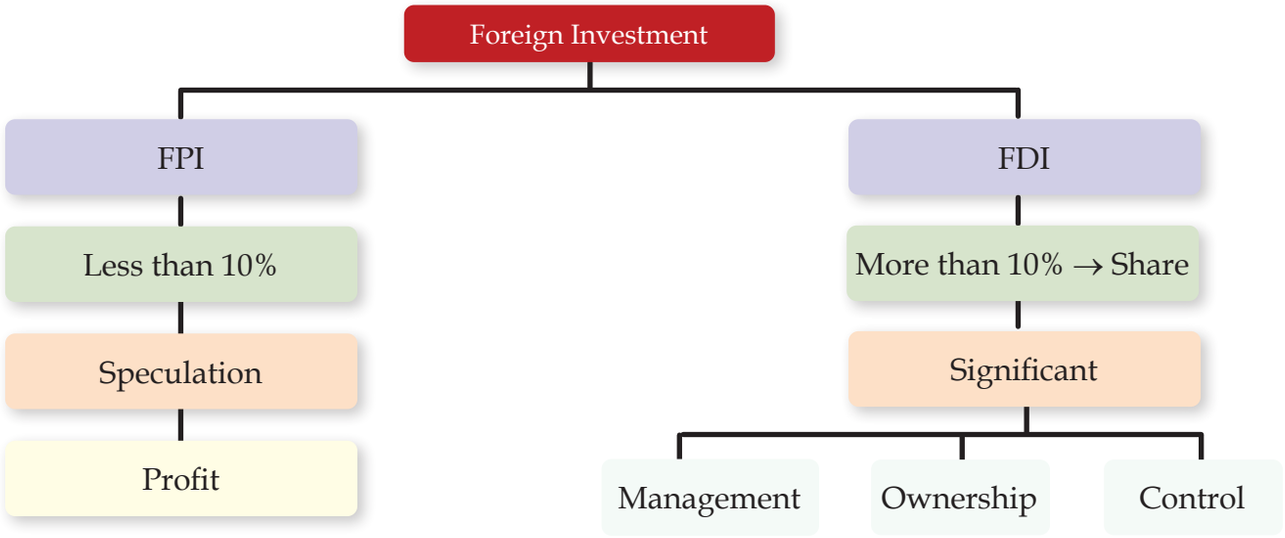


TYPES OF FOREIGN CAPITAL



Types of Foreign Capital			
Foreign aid or assistance	Borrowings	Deposits from non-resident Indians (NRI)	Other investment

❑ Bilateral or direct **inter government grants.** ❑ **Multilateral aid from many governments** who pool funds **with** international organizations like the **World Bank.** ❑ **Tied aid** with stipulation condition ❑ Untied aid without stipulations. ❑ **Foreign grants** which are **voluntary transfer of resources by governments,** institutions, agencies or organizations	❑ Direct **inter government loans** ❑ Loans from **international institutions** (e.g. world bank, IMF, ADB) ❑ **Soft loans** ❑ **External commercial borrowing,** ❑ **Trade credit** facilities Bills		❑ **Foreign portfolio investment (FPI)** in bonds, stocks and securities, and ❑ **Foreign direct investment (FDI)** in industrial, commercial and similar other enterprises



Question

1. Which of the following is a component of foreign capital?
(*a*) Direct inter government loans
(*b*) Loans from international institutions (e.g. World Bank, IMF, ADB)
(*c*) Soft loans for e.g. from affiliates of World Bank such as IDA
(*d*) All the above

Answer

1. (*d*)

FOREIGN PORTFOLIO INVESTMENT (FPI)

FPI flow of 'financial capital rather than 'real capital and it does not involve ownership or control on the part of investor.

FPI has immediate effects on balance of payments or exchange rates.

It is not concerned with either manufacture of goods or with provision of services.
Portfolio investments are characterized by **lower stake in companies with their total stake in a firm at below 10 percent.**

FOREIGN DIRECT INVESTMENT

1. FDI is defined as process whereby resident of one country acquires ownership of asset in another country and such movement of capital involves ownership, control as well as management of asset.
2. FDI, according to **IMF manual on 'Balance of payments'** is "all investments involving long-term relationship and reflecting lasting interest and control of resident entity in a economy in an enterprise resident in economy other than that of direct investor".
3. According to IMF and OECD **(The Organization for Economic Cooperation and Development)** definitions, it typically occurs through **acquisition of more than 10 percent of the shares of the target asset.**

Foreign Direct Investment (FDI)	Foreign Portfolio Investment (FPI)
Investment involves **creation of physical assets**	Investment is only in **financial assets**
Has a **long term interest** and therefore remain **invested for long**	Only **short term** interest and generally remain invested for short periods
Relatively difficult to withdraw	Relatively easy to withdraw
Not inclined to be speculative	**Speculative** in nature
Often accompanied by **technology transfer**	**Not** accompanied by technology transfer
Direct impact on employment of labour and wages	**No** direct impact on employment of labour and wages
Enduring **interest in management and control**	**No** abiding interest in management and Control
Securities are **held with significant degree of influence** by the investor on the management of the Enterprise	Securities are held **purely as a financial investment** and **no significant degree of influence** on the management of the Enterprise

Disadvantages of FDI

1. Equity capital shares
2. Reinvested earnings
3. Other direct capital in the form of intra-company loans between direct investors (parent enterprises) and affiliate enterprises

FDI is Done By

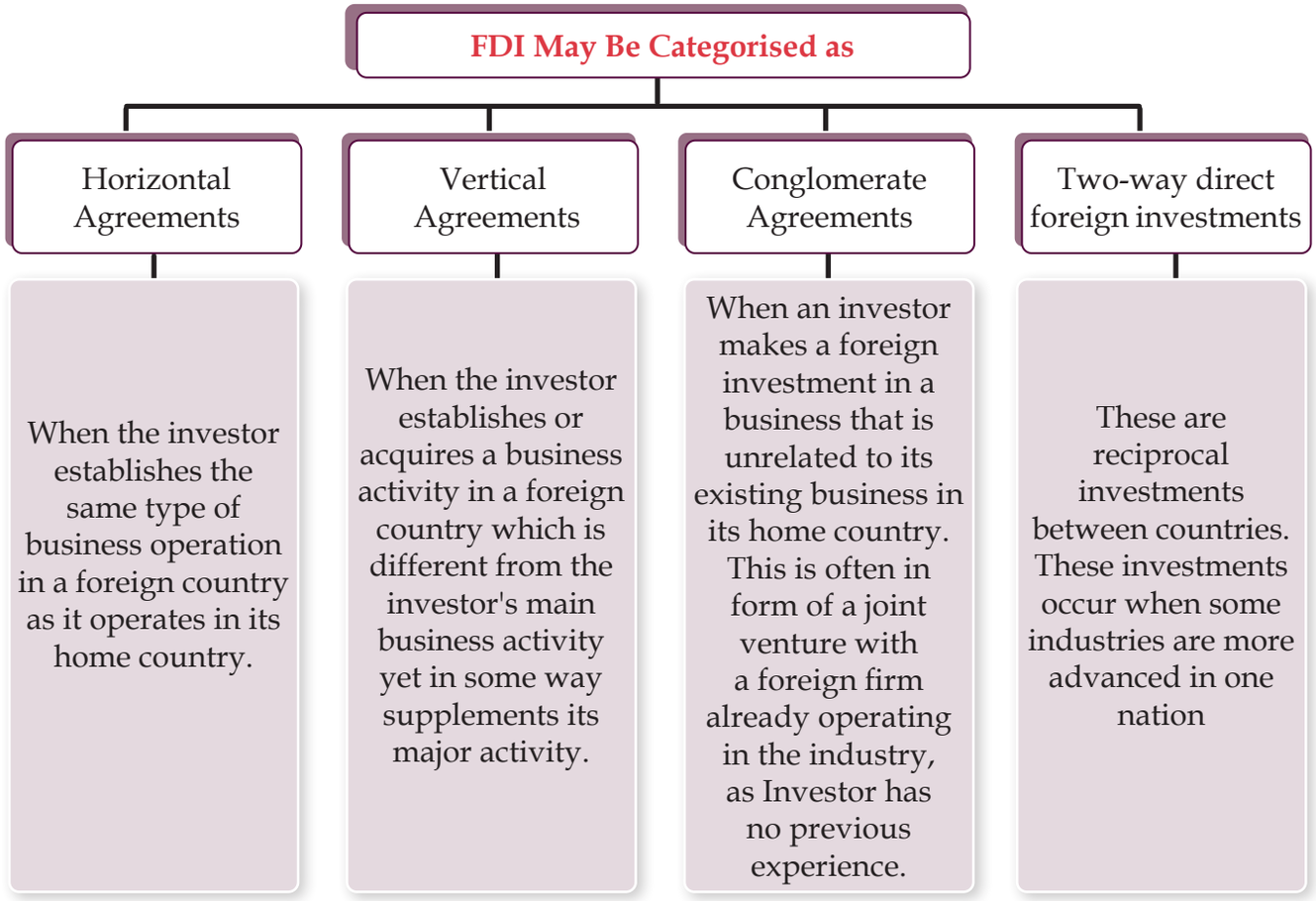
1. Individuals,
2. Incorporated or unincorporated private or public enterprises,
3. Associated groups of individuals or enterprises,
4. Governments or government agencies. estates, trusts, or other organizations
5. Or any combination of above

Modes of Foreign Direct Investment (FDI)

Foreign direct investments can be made in a variety of ways, such as

1. **Opening of a subsidiary or associate company** in a **foreign country.**
2. **Equity injection** into an overseas company,
3. **Acquiring a controlling interest in an existing foreign company. Mergers** and **acquisitions** (M & A)
4. **Joint venture** with a foreign company.
5. **Green field investment** (establishment of a new overseas affiliate for freshly starting production by a parent company).
6. **Brownfield investments** (a form of FDI which makes use of the existing infrastructure by merging, acquiring or leasing, instead of developing a completely new one.

   For e.g. in India 100% FDI under automatic route is allowed in Brownfield Airport projects.



Question

1. Which of the following would be an example of foreign direct investment from Country X?
   (*a*) A firm in Country X buys bonds issued by a Chinese computer manufacturer
   (*b*) A computer firm in Country X enters into a contract with a Malaysian firm for the latter to make and sell to it processors

(*c*) Mr. Z a citizen of Country X buys a controlling share in an Italian electronics firm

(*d*) None of the above

Answer

1. (*b*)

Reasons For FDI

1. Opportunity to generate profits available in other countries.

2. Expectation of higher rate of return than what is possible in the home country.

3. Some firm-specific knowledge or assets (such as superior management skills or an important patent) that gives foreign firms a competitive edge.

4. Increasing interdependence of national economies.

5. Internationalization of production

6. Reap economies of large-scale operation

7. Lack of feasibility of licensing agreements with foreign producers

8. Necessity to retain direct control of production knowledge and trade patents.

9. Procure a promising foreign firm to avoid future competition

10. Risk diversification

11. Shared common language and possible saving in time and transport costs (due to geographical proximity/nearby)

12. Desire to capture large and rapidly growing high emerging markets with high population

13. Getting behind the tariff wall or tariff jumping FDI

14. Lower environmental standards and relative saving in costs

15. Stable political environment

16. High degree of openness via SEZs

17. Lower wages

18. Tax differentials

19. Defensive investment

20. Philanthropic/charity objective

21. Higher per capita income

Determinants of FDI

1. **Poor macro-economic Environment:** Infrastructure lags, high rates of inflation and continuing instability, balance of payment deficits, exchange rate volatility, unfavourable tax regime (including double taxation), small size of market.

2. **Unfavourable Resource and Labour Market Conditions:** Poor natural and human resources, low literacy, low labour skills.

3. **Unfavourable Legal and Regulatory Framework:** Absence of well-defined property rights, lack of security to life and property, stringent regulations, cumbersome legal formalities and delays.

4. **Lack of Host Country Trade Openness:** Lack of openness, prevalence of non-tariff barriers, lack of a general spirit of friendliness towards foreign investors.

Important Benefits of FDI

1. **Competition for FDI among national governments also has helped to promote political and structural reforms** important to attract foreign investors, including legal systems and macroeconomic policies.
2. There is also **greater possibility for the promotion of ancillary units resulting in job creation** and **skill development** for workers.
3. Foreign enterprises possessing marketing information with their global network of marketing are in a unique position to utilize these strengths to promote the exports of developing countries. If the foreign capital **produces goods with export potential, the host country is in a position to secure scarce foreign exchange** needed to import capital equipment's or materials to assist the country's development plans or to ease its external debt servicing.
4. If the host country is in a position to implement effective tax measures, the foreign investment projects also would act as a **source of new tax revenue** which can be used for development projects.
5. It is likely that foreign investments enter into industries in which **economies of scale can be realized** so that **consumer prices may be reduced.** Domestic firms might not always be able to generate the necessary capital to achieve the cost reductions associated with large-scale production.
6. **Increased competition** resulting from the inflow of foreign direct investments facilitates **weakening of the market power of domestic monopolies** resulting in a possible increase in output and fall in prices.
7. Since FDI has a **distinct advantage over the external borrowings**, it is considered to have a **favorable impact on the host country's balance** of **payment position.**
8. **Better work culture** and **higher productivity standards** brought in by foreign firms may possibly induce productivity related awareness and may also contribute to overall human resources development.
9. Higher wages for skilled jobs.
10. Improvement in relationship between countries.

Disadvantages of FDI

Following are the general Disadvantages put forth against the entry of foreign capital:

1. FDIs are likely to **concentrate on capital-intensive methods of production** and **service** so that they need to **hire only relatively few workers. Such technology is inappropriate** for a **labour-abundant country** as it does not support generation of jobs which is a crucial requirement to address the two fundamental areas of concern for the less developed countries namely, poverty and unemployment.
2. The inherent tendency of FDI flows to **move towards regions or states** which are **well endowed** in terms of **natural resources** and **availability** of **infrastructure** has the potential to accentuate regional disparity. Gurgaon, Delhi; Noida, Bangalore etc..

   Foreign capital is also criticized for accentuating the already existing income inequalities in the host country.

3. In the context of developing countries, it is usually alleged that the **inflow of foreign capital** may cause the **domestic governments to slow down** its efforts to generate more domestic savings, especially when tax mechanisms are difficult to implement. If the foreign corporations are able to secure incentives in the form of tax holidays or similar provisions, the host country loses tax revenues.
4. FDI is also held responsible by many for **ruthless exploitation of natural resources and the possible environmental damage.**
5. With substantial FDI in developing countries there is a strong possibility of emergence of a **dual economy** with **a developed foreign sector** and an **underdeveloped domestic sector.**
6. FDI usually involves domestic companies **'off-shoring',** or **shifting jobs** and operations abroad in pursuit **of lower operating costs and consequent higher profits.** This has deleterious effects on employment potential of home country.
7. Foreign entities are usually accused of being **anti-ethical** as they frequently resort to methods like **aggressive advertising** and **anticompetitive practices** which would induce market distortions.
8. FDI may have adverse impact on the host country's commodity terms of trade (defined as the price of a country's exports divided by the price of its imports).
9. Crowding out effect
10. Sometimes skilled work is not given to the host country only routine management jobs are provided
11. Aggressive advertising may distort domestic firms
12. Foreign firms with deep pocket may set a lower price to rule out domestic firms from the competition
13. High wages given by foreign firm may influence domestic firms to give higher wages

FOREIGN DIRECT INVESTMENT IN INDIA

- Foreign Direct Investment (FDI), in addition to being a **key driver of economic growth,** has been a significant non-debt financial resource for India's economic development. Foreign corporations invest in India to benefit from the country's particular investment privileges such as **tax breaks** and **comparatively lower salaries.**
- This helps India develop **technological know-how** and **create jobs** as well as **other benefits.** These investments have been coming into India because of the **government's supportive policy framework, vibrant business climate, rising global competitiveness and economic influence.**
- The government has recently made numerous efforts, including easing FDI regulations in various industries, PSUs, oil refineries, telecom and defence.
- India's FDI inflows reached record levels during 2020-21. The total FDI inflows stood at US$ 81,973 million, a 10% increase over the previous financial year.
- According to the World Investment Report 2022, **India was ranked eighth among the world's major FDI recipients in 2020, up from ninth in 2019.**
- Information and technology, telecommunication and automobile were the major receivers of FDI in FY22.
- Permission for FDI is not uniform for all sectors. Some sectors are opened up for 100% and in some sectors it is allowed only upto 26%, 49% and 51%.

Determinants of FDI

- Atomic anergy
- Lottery business
- Gambling, betting
- Chit funds
- Nidhi
- Agriculture excluding floriculture, horticulture, animal husbandry, pisciculture / fisheries
- Plantations other than tea plantation
- Housing and real estate except development of township, commercial premises, roads, bridges to the extent specified
- Manufacture of cigar and tobacco

OVERSEAS DIRECT INVESTMENT BY INDIAN COMPANIES

- India is primarily a domestic demand-driven economy, with **consumption** and **investments** contributing to **70% of the economic activity.** With an improvement in the economic scenario and the Indian economy recovering from the Covid-19 pandemic shock, India is relatively well placed than the rest of the world.
- This gives **Indian businesses an advantage** to make **investments abroad** and broaden their operational footprint in such nations.
- **New innovations** from abroad would be **brought to India** with the **help of knowledge spillover,** and **India itself would contribute to the growth of other nations.** In this manner, **a mutual benefit** is achieved.

Some of the key overseas investments and developments that have taken place in the recent past are mentioned as follows ICAI Module:

According to data released by the Reserve Bank of India (RBI), overseas direct investment stood at US$ 1,922.51 million in September 2022.

The critical investments are as follows:

- In June 2022, Tata Steel announced plans to invest 7 million pounds (US$ 837.95 billion) for its Hartlepool Tube Mill in North-East England.
- Tata Communications invested US$ 690 million in its wholly-owned subsidiary in Singapore
- Jindal Steel and Power invested US$ 366 million in its wholly owned subsidiary in Mauritius
- Wipro invested US$ 204.96 million in its wholly-owned subsidiary in Cyprus.
- Jindal Saw invested US$ 64.5 million in its wholly-owned subsidiary in the United Arab Emirates.
- Restaurant Brand Aisa and Lupin Ltd invested US$ 141.34 million and US$ 131.25 million in their JVs in Indonesia and the US, respectively.
- Reliance New Energy invested US$ 87.73 million in its wholly owned subsidiary in Norway.
- Mohalla Internet Pvt. Ltd. invested US$ 86 million in its fully owned unit in Mauritius.
- ONGC Videsh invested US$ 83.31 million in a joint-venture in Russia.
- ICICI Bank ties up with Santander in Britain in a pact aimed at facilitating the banking requirements of corporates operating across both countries.
- ANI Technologies, the promoter of OLA, invested US$ 675 million in its wholly-owned subsidiary in Singapore.

- Dr Reddy invested US$ 149.99 million in a joint-venture (JV) in the US.
- A total of US$ 168.9 million was invested by Reliance New Energy in a JV and wholly-owned subsidy in Germany and Norway.
- Gail India, energy PSU invested US$ 70.17 million in a JV and wholly-owned unit in Myanmar and the US.
- ONGC invested US$ 74.15 million during the month in various countries in 5 different ventures.
- In July 2022, Reliance Brands Ltd. signed a distribution agreement with Maison Valentino, an Italian luxury fashion house, to open its first boutique in Delhi, followed by a flagship store in Mumbai.
- In July 2022, Reliance Retail Limited entered into a long-term partnership with Gap Inc. to bring the iconic American fashion brand, Gap, to India.
- In July 2022, Tata Steel signed a Memorandum of Understanding (MoU) with BHP, a leading global resources company, with the intention to jointly study and explore low-carbon iron and steelmaking technology.
- In January 2022, Ola Electric, the ride-hailing company's electric vehicle (EV) subsidiary, announced its plans to establish Ola Futurefoundry, a global hub for advanced engineering and vehicle design in the UK, investing US$ 100 million over the next 5 years.
- In January, Essar Group of India announced that it had created a joint venture with Progressive Energy of the UK to invest US$ 1.34 billion in a hydrogen manufacturing plant at its Essar Stanlow refinery complex.
- In January, Hindalco Ltd's US subsidiary, Novelis, announced its plans to invest US$ 365 million in a state-of-the-art vehicle recycling facility in North America.

Investor	Amount	Subsidiary Invested in
Tata Steel	7 Million Pounds	Hartlepool Tube Mill, England
Tata Communication	US$ 690 million	Subsidiary in Singapore
Jindal Steel and Power	US$ 366 million	Subsidiary in Mauritius
Wipro	US$ 204.96 million	Subsidiary in Cyprus
Jindal Saw	US$ 64.5 million	Subsidiary in the UAE

Questions

1. Which of the following types of FDI includes creation of fresh assets and production facilities in the host country?

(*a*) Brownfield investment
(*b*) Merger and acquisition
(*c*) Greenfield investment
(*d*) Strategic alliances

2. Which of the following is a reason for foreign direct investment?

(*a*) Secure access to minerals or raw materials
(*b*) Desire to capture of large and rapidly growing emerging markets
(*c*) Desire to influence home country industries
(*d*) (*a*) and (*b*) above

3. A foreign direct investor

(*a*) May enter India only through automatic route

(*b*) May enter India only through government route

(*c*) May enter India only through equity in domestic enterprises

(*d*) Any of the above

4. Which is the leading country in respect of inflow of FDI to India?

(*a*) Mauritius (*b*) USA

(*c*) Japan (*d*) USA

5. An argument in favour of direct foreign investment is that it tends to

(*a*) Promote rural development (*b*) Increase access to modern technology

(*c*) Protect domestic industries (*d*) Keep inflation under control

6. Foreign investments are prohibited in

(*a*) Power generation and distribution (*b*) Highways and waterways

(*c*) Chit funds and Nidhi company (*d*) Airports and air transport

7. Which of the following statements is incorrect?

(*a*) Direct investments are real investments in factories, assets, land, inventories etc. and involve foreign ownership of production facilities

(*b*) Foreign portfolio investments involve flow of 'financial capital'

(*c*) Foreign direct investment (FDI) is not concerned with either manufacture of goods or with provision of services.

(*d*) Portfolio capital moves to a recipient country which has revealed its potential for higher returns and profitability

8. Which of the following statement is false in respect of FPI?

(*a*) portfolio capital in general, moves to investment in financial stocks, bonds and other financial instruments

(*b*) is effected largely by individuals and institutions through the mechanism of capital market

(*c*) is difficult to recover as it involves purely long-term investments and the investors have controlling interest

(*d*) investors also do not have any intention of exercising voting power or controlling or managing the affairs of the company

9. A U.S. based cell phone service provider expands its operations in India by offering the same telecommunication services as it does in the U.S. This type of investment is an example of: **(Sept. 2025)**

(*a*) Horizontal direct investment (*b*) Vertical investment

(*c*) Conglomerate Investment (*d*) Two-way direct foreign investment

10. In which of the following forms of FDI, 100% investment is allowed under the automatic route for airport projects in India ? **(Sept. 2025)**

(*a*) Greenfield investment (*b*) Brownfield investment

(*c*) Joint venture (*d*) Subsidiary establishment

11. Match the following: **(May 2025)**

Table A	Table B
(a) Has a long term interest and is invested for long	(i) Foreign Portfolio Investment
(b) Speculative in Nature	(ii) Foreign Direct Investment
(c) Help developing countries benefit fully from global trading system	(iii) Free Floating exchange rate system
(d) Government and central banks do not participate in the market for foreign exchange	(iv) World Trade Organization

(*a*) (*a*)-(ii), (*b*)-(i), (*c*)-(iv), (*d*)-(iii)
(*b*) (*a*)-(i), (*b*)-(ii), (*c*)-(iv), (*d*)-(iii)
(*c*) (*a*)-(ii), (*b*)-(i), (*c*)-(iii), (*d*)-(iv)
(*d*) (*a*)-(i), (*b*)-(ii), (*c*)-(iii), (*d*)-(iv)

12. An investment in which one investor establishes a business activity in a foreign country which is different from investor's main business activity but in some way supplements its major activity is called _____. **(May 2025)**

(*a*) Horizontal direct investment
(*b*) Vertical investment
(*c*) Conglomerate type of FDI
(*d*) Two way direct foreign investment

Answers

1. (*c*) **2.** (*d*) **3.** (*d*) **4.** (*a*) **5.** (*b*) **6.** (*c*) **7.** (*c*) **8.** (*c*) **9.** (*a*) **10.** (*b*)
11. (*a*) **12.** (*b*)

10

INDIAN ECONOMY

STATUS OF INDIAN ECONOMY: PRE INDEPENDENCE PERIOD (1850–1947)

- Between 1st and 17th century AD, India is believed to have had the largest economy of the ancient and medieval world.
- It was prosperous and self-reliant, and is believed to have controlled between 1/3rd (33%) and 1/4th (25%) of world's wealth.
- Agriculture was dominant occupation, and main source of livelihood for majority of people.
- It also had a highly skilled set of artisans and craftsmen who produced handicrafts and textiles.
  - **Labour Division of labour in Villages** based on race, class, and gender.
  - **Agriculture and Craftsmanship:** Agriculture dominated, with skilled artisans for global markets.

Ancient Economic Philosophy of India

- The earliest treatise/book on ancient Indian economic philosophy is 'Arthashastra' by Kautilya (Chanakya) (321-296 BCE).
- It was handbook for King Chandragupta Maurya, founder of Mauryan empire.
- Arthashastra science of 'artha' or material prosperity, or "the means of subsistence of humanity," which is, primarily, 'wealth' and, secondarily, 'the land'.
- Meaning of true kingship → ruler's subordination of his own desires to the good of his people;
- 7 vital elements of policy → King, Ministers, Farmlands/agriculture land, Fortresses, Treasury, Military and Allies/friends.

Period of British Rule is classified into 2 parts:

1. **East India Company Rule:** 1757-1858
2. **British Government Rule:** 1858-1947

Economic and Social Consequences of Damage to Traditional Economy

1. **Large-Scale Unemployment:** Destruction of traditional industries led to widespread unemployment, increasing dependence on agriculture.
2. **Increased Land Pressure:** Subdivision and fragmentation of land led to subsistence farming, reduced productivity, and growing poverty.
3. **Imported Goods Impact:** Cheap British machine-made goods and changing consumer preferences harmed domestic industries.
4. **Zamindari System:** The zamindari system supported British rule and disrupted the local economy and social structure.

5. **Excessive Rent:** Land pressure allowed zamindars to impose excessive rents on tenants.
6. **Agricultural Collapse:** Absentee landlordism, debt, exploitative money lenders, and neglect of productivity led to the collapse of Indian agriculture.

- **Reason for British Expansion:** Industrial Revolution in Britain (late 18th century).
- **Trade Policies of Britishers:**
- **Discriminatory Tariffs:**
  - **Indian Finished Goods:** High tariffs on exports and domestic sales made Indian goods Costlier
  - **Imports from Britain:** Low tariffs made British goods Cheaper

Effects of this tariff policy on Indian Industries:

- **Decline in Demand:**
  - Decreased for indigenous products
  - Rise in competition from British machine-made goods
  - Shift in consumer preference towards foreign goods

STAGNATED NATURE OF INDUSTRIALISATION: DURING THE COLONIAL ERA

Aspect	Details
Cotton Mill Industry (1930s)	9 million spindles (5th position)
Jute Mills	Largest globally by raw jute consumption
Iron Industry (1930)	8th in world output
Industrial Ranking (1930)	12th in manufactured products value
Producer Goods Industries	Limited expansion due to British Policies
Manufacturing Sector Share (1946)	7% Net Domestic Product

Questions

1. Between the first and the 17th Century AD, India was prosperous and self-radiant and is believed to have controlled _____ of the world's wealth.
   (*a*) One Tenth (*b*) One Third
   (*c*) One Fourth (*d*) Between one third and one fourth
2. In British era, what was the reason for virtual collapse of Indian agriculture?
   (*a*) Absentee landlordism
   (*b*) High indebtedness of agriculturists, growth of a class of exploitative money lenders
   (*c*) Low attention to productivity enhancing measures
   (*d*) All of the above
3. In British era, which of the following factors forced many to depend on agriculture for livelihood?
   (*a*) Large scale unemployment
   (*b*) Absence of alternate sources of employment
   (*c*) Both (*a*) and (*b*)
   (*d*) None of these

4. In British era, the increased pressure on land led to _____.
   (*a*) Sub-division and fragmentation of land holdings
   (*b*) Subsistence farming
   (*c*) Reduced agricultural productivity and poverty
   (*d*) All of the above

5. Which of the following cause is reducing the ability of Indian agriculturalists to participate in domestic as well as export market? **[June 2024]**
   (*a*) Low farming productivity and subsistence farming.
   (*b*) Large amount of marketable sur-plus with farmers
   (*c*) Dominated by big farmers and farm productivity
   (*d*) Big landholdings by small farmers

6. Before 1950, the factory-based production _____ in India.
   (*a*) Did not exist (*b*) Existed in petroleum
   (*c*) Existed in digital products (*d*) Existed in agriculture

7. At the end of the 19th century, the Indian jute mill industry was the _____ in the world in terms the of the amount of raw jute consumed in production.
   (*a*) Largest (*b*) Second Largest
   (*c*) Negligible (*d*) Lowest

8. Heavy industries such as the iron industry were established as early as 1814 by British capital. India's iron industry was ranked _____ in the world in terms of output in 1930.
   (*a*) First (*b*) Fifth
   (*c*) Seventh (*d*) Eight

9. Just before the Great Depression, India was ranked as the _____ largest industrialized country measured by the value of manufactured products.
   (*a*) 10th (*b*) 11th
   (*c*) 12th (*d*) 13th

Answers

1. (*d*) **2.** (*d*) **3.** (*c*) **4.** (*d*) **5.** (*a*) **6.** (*a*) **7.** (*a*) **8.** (*d*) **9.** (*c*)

INDIAN ECONOMY: POST-INDEPENDENCE (1947–1991)

Literacy Rate (1947)	18%
Life Expectancy (1951)	32 years
Nehruvian Model Focus	Social and economic redistribution, state-led industrialisation
Planning Commission (1950)	Established for economic development through 5-Year Plans
First 5-Year Plan (1951)	Launched to support economic development
Development Strategy	Rapid industrialisation and planned modernisation

Industrial Policy Resolution

Industrial Policy Resolution (1948)	Expanded public sector, state monopoly in strategic areas
Strategic Areas for State Monopoly	Atomic energy, arms and ammunition, railways
Basic Industries Investment Rights	Exclusively given to the state
1950s - two Economic Philosophies	Nehru's heavy industry focus vs. Gandhian small scale industries
Industrial Policy Resolution (1956)	Framework for development; biased towards public sector
Trade Policy (1950s)	Open until 1958; followed by tighter controls
Balance of Payments Crisis (1958)	Led to tighter trade and investment controls
Growth Rate (1950-1980)	Average annual GDP growth: 3.5% (Hindu growth rate)

Key Events and Policies

Pre-Green Revolution Strategy	Land reforms, farm cooperatives; neglected R and D
Agricultural Crisis (1966-1967)	Severe droughts, food aid dependence
Green Revolution	High-yield seeds, intensive inputs like fertilizers, pesticides etc.
Bank Nationalization	14 banks (1969), 6 banks (1980)
Economic Performance (1965-1981)	Decline in productivity, license raj, external shocks
MRTP Act, 1969	Regulated large firms, restricted expansion

Reservation for Small Scale Sector

- In 1967, many products were reserved for exclusive manufacture by the small scale sector.
- It was thought that this policy will encourage labour-intensive economic growth and allow redistribution of income.
- However, this policy excluded all big firms from labour intensive industries and India was not able to compete in the world market for these products. Stringent labour laws also discouraged labour intensive industries.

Questions

1. The post-independence economic policy was rooted in:

(*a*) A capitalist mode of production with heavy industrialization

(*b*) Social and economic redistribution and industrialization directed by the state

(*c*) Social and economic redistribution through private sector initiative

(*d*) Industrialization led by private entrepreneurs and redistribution by state

2. Which of the following was NOT the ideology of industrialization prevailed in the early days of independence?

(*a*) Establishing an economic system in which the central government would have authority to design the economic strategy

(*b*) To carry out the necessary investments in coordination with the private sector.

(*c*) Systematic planning to support industrialization.

(*d*) Lowest level of industrialization of the economy

3. In independent India, the comprehensive import controls were maintained until _____.

(*a*) 1955 (*b*) 1962

(*c*) 1966 (*d*) 1970

4. Rapid industrialization of the economy was the cornerstone of whose development strategy?

(*a*) Nehru (*b*) Patel

(*c*) India (*d*) None of these

5. The 'Hindu growth rate' is a term used to refer to_____.

(*a*) The high rate of growth achieved after the new economic policy of 1991

(*b*) The low rate of economic growth of India from the 1950's to the 1980's, which averaged around 3.5 per cent per year

(*c*) The low growth of the economy during British period marked by an average 3.5 per cent

(*d*) The growth rate of the country because India is referred to as 'Hindustan'

6. In 1954, India signed a long-term agreement with the US for food aid. What was the name of this agreement?

(*a*) PL-480 (*b*) PL-440

(*c*) PL-420 (*d*) PL-400

7. The policies in 1950's were guided by _____.

(*a*) Nehruvian philosophy of visualizing a socialistic society with emphasis on heavy industries

(*b*) Gandhian philosophy of stress-ing on small scale and cottage industry and village republics

(*c*) Both (*a*) and (*b*)

(*d*) None of these

8. Which revolution was materialized by innovative farm technologies including high yielding seed varieties and intensive use of water, fertilizers & pesticides? **[June 2024]**

(*a*) The Green revolution (*b*) The Kisan revolution

(*c*) The Agricultural revolution (*d*) The Fasal revolution

9. The economic performance during the period of 1965-81 is the worst in independent India's history the decline in growth during this period is attributed mainly to decline in prodcutivity. Which of the following factors contributed to the decelerated growth that lasted two decades?

(i) The license-raj, the autarchic policies that dominated the 1960s and 1970s

(ii) The external shocks of three wars (in 1962, 1965, and 1971)

(iii) The major droughts (Especially 1966 and 1967)

(iv) The oil shocks of 1973 and 1979

(*a*) (i) Only (*b*) Both (i) and (ii)

(*c*) (i), (ii), and (iii) (*d*) (i), (ii), (iii) and (iv)

10. The goverment nationalized 14 banks in _____ and then followed it up with nationalizing another 6 in _____.

(*a*) 1967, 1977 (*b*) 1969, 1980

(*c*) 1980, 1969 (*d*) None of these

11. MRTP Act, 1969, is aimed at regulation of _____ which had relatively _____ market power **[June 2024]**

(*a*) Large firms, large (*b*) Large firms, small

(*c*) Small firms, small (*d*) Small firms, medium

12. In which year, the policy of reservation of many products for exclusive manufacture by the small scale sector was initiated with the objective of promotion of small-scale industries.

(*a*) 1967 (*b*) 1969

(*c*) 1971 (*d*) 1973

Answers

1. (*b*) **2.** (*d*) **3.** (*c*) **4.** (*a*) **5.** (*b*) **6.** (*a*) **7.** (*c*) **8.** (*a*) **9.** (*d*) **10.** (*b*)
11. (*a*) **12.** (*a*)

THE ERA OF REFORMS

The early reforms of 1980's broadly covered three areas, namely industry, trade and taxation. Simultaneously, the government also embarked on a policy of skilful exchange rate management. The prominent industrial policy initiatives during this period directed towards removing constraints on growth and creating a more dynamic industrial environment were:

- In 1985 delicensing of 25 broad categories of industries was done. This was later extended to many others.
- The facility of broad-banding' was accorded for industry groups to allow flexibility and rapid changes in their product mix without going in for fresh licensing. In other words, the firms in the engineering industry were allowed to change their product mix within their existing capacity. For example, firms may switch production between different production lines such as trucks and car without a new license.
- To relax the hold of the licensing and capacity constraints on larger MRTP firms, in 1985-86, the asset limit above which firms were subject to MRTP regulations was raised from 20 crore to 100 crore.
- The multipoint excise duties were converted into a modified value-added (MODVAT) tax which significantly reduced the taxation on inputs and the associated distortions.
- Establishment of the Securities and Exchange Board of India (SEBI) as a non-statutory body on April 12, 1988 through a resolution of the Government of India.

- The open general licence (OGL) list was steadily expanded. The number of capital goods items included in the OGL list expanded steadily reaching, 1,329 in April 1990.
- Several export incentives were introduced and expanded.
- The exchange rate was set at a realistic level which helped expand exports and in turn reduced pressure on foreign exchange needed for imports.
- Price and distribution controls on cement and aluminum were entirely abolished.
- Based on the real effective exchange rate (REER), the rupee was depreciated by about 30.0 percent from 1985-86 to 1989-90. This reflects a considerable change in the official attitude towards exchange rate depreciation
- The budget for 1986 introduced policies of cutting taxes further, liberalising imports and reducing tariffs.

However, the growth performance of the economy was thwarted due to structural inadequacies and distortions. The private sector investments were inhibited due to reasons such as convoluted licensing policies, public sector reservations and excessive government controls. Due to reservation of goods to small scale sector as well as excessive price and distribution controls, the private sector was virtually discouraged from making investments. The public sector which led the manufacturing and service sectors was plagued by inefficiency, government controls and bureaucratic procedures. Despite the fact that they were of massive in size and enjoyed monopoly in their respective areas, their performance was far from satisfactory and yielded very low returns on investment.

The MRTP act had many restrictive conditions creating barriers for entry, diversification and expansion for large industrial houses. Import controls in the form of tariffs, quotas and quantitative restrictions ensured that foreign manufactures and components did not cross the borders and compete with the domestic industries. Foreign investments and foreign competition were not allowed on grounds of affording protection to domestic industries. Briefly put, the rules and regulations which were aimed at promoting and regulating the economic activities became major hindrances to growth and development.

Though the reforms in 1980's were limited in scope and were without a clearly observable road map as compared to the New Economic Policy in 1990, they were instrumental in bringing confidence in the minds of politicians and policy makers regarding the efficacy of policy changes to produce sustained economic growth. The belief that well-regulated competitive markets can ensure economic growth and also increase total welfare got fostered in the minds of policy makers. In other words, the idea that government intervention in markets need not always be accepted as, the standard, and that markets should be given priority over government in the conduct of a good number of economic activities gained a broad acceptance. Thus, the liberalisation in the 1980s served as the necessary foundation for the more universal and organised reforms of the 1990s.

Summary Table of the Era of Reforms

Early Liberalisation (1981-1989)	Shift from inward-oriented practices
GDP Growth Rates	5.7% (1980-1985), 5.8% (1985-1990)
Industrial Policy Initiatives	Delicensing, broad-banding, MRTP limit increase
MODVAT Tax	Reduced taxation on inputs
SEBI	Established April 12, 1988
OGL Expansion	1,329 capital goods items by April 1990

Export Incentives	Introduced and expanded
Exchange Rate Policy	Rupee depreciated ~30% (1985-1990)
Price Controls	Abolished on cement and aluminium
1986 Budget Policies	Tax cuts, import liberalisation, reduced tariffs

Questions

1. The first wave of liberalization starts in India _____.

(*a*) In 1951 (*b*) In 1980's

(*c*) In 1990's (*d*) In 1966

2. The number of capital goods items included in the OGL list expanded steadily reaching 1,329 in April 1990. What is the full form of OGL?

(*a*) Open General License (*b*) Other Goods List

(*c*) Open Goods List (*d*) Other General List

3. Based on the Real Effective Exchange Rate (REER), the rupee was depreciated by about 30 per cent from

(*a*) 1980-81 to 1990-91 (*b*) 1982-83 to 1990-91

(*c*) 1985-86 to 1989-90 (*d*) None of these

4. The budget for 1986 introduced policies of _____.

(*a*) Cutting taxes further (*b*) Liberalizing imports

(*c*) Reducing tariffs (*d*) All of the above

Answers

1. (*b*) **2.** (*a*) **3.** (*c*) **4.** (*d*)

THE ECONOMIC REFORMS OF 1991

India embarked on a bold set of economic reforms in 1991 under the Narshimha Rao government.

The causes attributed to the immediate need for such a drastic change are:

1. The fiscal initiatives for enhanced economic growth in 1980s saw the government revenue expenditure consistently exceeding revenue receipts. The fiscal deficit was financed by huge amounts of domestic as well as external debt. The high level current expenditure proved clearly unsustainable and got manifested on extremely large fiscal deficits and adverse balance of payments.

2. Persistent huge deficits led to swelling public debt and a large proportion of government revenues had to be earmarked for interest payments.

3. The surge in oil prices triggered by the gulf war in 1990 and the consequent severe strain on a balance of payments.

4. The foreign exchange reserves touched the lowest point with a reserve of only $1.2 billion which was barely sufficient for two weeks of imports. This was the major context that triggered economic reforms.

5. Tightening of import restrictions to muster forex for essential imports resulted in reduction in industrial output.
6. India had to depend on external borrowing from the International Monetary Fund which in turn put forth stringent conditions in terms of corrective policy measures before additional drawings could be made.
7. The fragile political situation along with the crises in the economic front ballooned into what may be called a 'crisis of confidence'.

The year 1991 marked a paradigm shift in the Indian policy reforms. The nation which had embraced the 'socialist model', with the state playing an overriding role in the economy had the history of the government persistently intervening in the markets. Collapse of the Soviet Union and the spectacular success of China, based on outward oriented policies were lessons for the Indian policy makers. The reforms instituted in 1991 aimed to move the economy toward greater market orientation and external openness.

The reforms, popularly known as liberalisation, privatisation and globalisation, spelt a major shift in economic philosophy and fundamental change in approach and had two major objectives:

1. reorientation of the economy from a centrally directed and highly controlled one to a 'market friendly' or market oriented economy.
2. macroeconomic stabilisation by substantial reduction in fiscal deficit.

A detailed description of reform measures is beyond the scope of this unit. We shall now have a brief account of the major measures taken in 1991.

As we know, the momentum for reforms originated in the critical economic, fiscal and balance of payments crises. Therefore, the reform package was structured as a core package of mutually supportive reforms to address the balance of payment crisis and the structural rigidities. The policy paradigm focused on shifting from central direction to market orientation.

The policies can be broadly classified as:

1. stabilisation measures which were short term measures to address the problems of inflation and adverse balance of payment and
2. the structural reform measures which are long term and of continuing nature aimed at bringing in productivity and competitiveness by removing the structural rigidities in different sectors of the economy.

Fiscal Reforms

- Bringing in fiscal discipline by reducing the fiscal deficit was vital because-
  - excess domestic demand,
  - surge in imports,
  - widening of the Current Account Deficit (CAD).

  This was attempted by measures to increase govt. revenues and curtail govt. exp.
- Measures to this effect included:
  1. Introduction of a stable and transparent tax structure,
  2. Ensuring better tax compliance,
  3. Thrust on curbing government expenditure,
  4. Reduction in subsidies and abolition of unnecessary subsidies,
  5. Disinvestment of part of govt's equity holdings in select PSUs,
  6. Encouraging private sector participation.

Monetary and Financial Sector Reforms

- The focus was mostly on-
  - reducing the burden of NPAs on government banks,
  - introducing and sustaining competition, and
  - deregulating interest rates.
- These included many measures, important among them are:
  1. Interest rate liberalisation and reduction in controls on banks by RBI in respect of interest rates.
  2. Opening of new private sector banks and facilitating competition among public, private sector and foreign banks and removal of administrative constraints.
  3. Reduction in reserve requirements namely, SLR and CRR, in line with recommendations of the Narasimham Committee Report, 1991.
  4. Liberalisation of bank branch licensing policy and granting of freedom to banks in respect of opening, relocating or closure of branches
  5. Prudential norms of accounting in respect of classification of assets, disclosure of income and provisions for bad debt, to ensure books of banks reflect truthful financial position.

Reforms in Capital Markets

- SEBI that was set up in 1988 was given statutory recognition in 1992.
- It is an independent regulator of the capital market → creates a transparent environment which would facilitate mobilization of adequate resources and their efficient allocation.

The New Industrial Policy (Announced July 24, 1991)

Objective:

- **Purpose:** Substantially deregulate industry to foster a more efficient and competitive industrial economy.

Key Reforms Introduced:

1. **Ending the 'License Raj':**
   - **Licensing Restrictions:** Removed for most industries except 5:
   - Arms and ammunition
   - Atomic substances
   - Narcotic drugs
   - Hazardous chemicals
   - Distillation and brewing of alcoholic drinks, cigarettes, and cigars
2. **Limiting Public Sector:**
   - **Initial Scope:** Public sector limited to eight sectors based on security and strategic importance
   - **Current Scope:** Reduced to two sectors - railway transport and atomic energy
3. **Restructuring of the MRTP Act:**
   - **Changes:** Repealed provisions related to mergers, amalgamations, and takeovers
   - **Impact:** Removed pre-entry scrutiny and prior approval requirements for large companies

4. **Dereservation of Products:**
   - **Effect:** Opened products previously reserved for small-scale industries to large-scale industries
5. **Ending Public Sector Monopoly:**
   - **Current Reserved Sectors:** Only atomic energy generation and railway transport
6. **Liberalization of Foreign Investment:**
   - Automatic Approval: Introduced for most FDIs
   - **FDI prohibited in four sectors:**
     - Retail trade
     - Atomic energy
     - Lottery business
     - Betting and gambling
7. **Liberalisation of External Trade:**
   - **Approach Change:** Shifted from positive list (license-free items) to negative list approach
8. **Reduction in Tariffs:**
   - **Tariff Rates:** Reduced from 355% in 1990-91 to:
     - 85% in 1993-94
     - 50% in 1995-96
     - 10% by 2007-08
   - **Exceptions:** Some goods retained higher tariffs like automobile 100%
9. **Rupee Devaluation:**
   - **Rate:** Devalued by 18% against the dollar
10. **Disinvestment and Autonomy for PSUs:**
    - **Disinvestment:** Reduced government equity in PSUs
    - **Autonomy:** Increased decision-making power and professional management for PSUs
    - **Budgetary Support:** Gradual reduction

Questions

1. What is the main cause attributed to the immediate need for economic reforms in 1991? **[June 2024]**

   (*a*) Fiscal deficit was financed by huge amounts of domestic and external debts

   (*b*) Forex reserves touched the highest point

   (*c*) Persistent huge deficit led to declining public debt

   (*d*) Government's revenue expenditure consistently lowering revenue receipts.

2. To manage the economic crises of 1991, Indian Government approached World Bank and IMF. What is the amount of loan received by India?

   (*a*) $ 10 billion (*b*) $ 7 billion

   (*c*) $ 5 billion (*d*) None of these

3. Which of the following was the objective of the LPG reforms, taken in 1991?
   (*a*) Reorientation of the economy from a centrally directed and highly controlled one to a 'market friendly' or market-oriented economy
   (*b*) Macroeconomic stabilization by substantial reduction in fiscal deficit
   (*c*) Both (*a*) and (*b*)
   (*d*) None of these
4. Which of the following is a part of fiscal reforms of 1991?
   (*a*) Introduction of a stable and trans-parent tax structure
   (*b*) Ensuring better tax compliance
   (*c*) Reduction in subsidies and abolition of unnecessary subsidies
   (*d*) All of the above
5. What was the focus of monetary and fiscal sector reforms (1991)?
   (*a*) Reducing the burden ofnon-per-forming assets on government banks
   (*b*) Introducing and sustaining com-petition
   (*c*) Deregulating interest rates
   (*d*) All of the above
6. In "New Industrial Policy" of 1991, the public sector was limited to sectors based on security and strategic grounds.
   (*a*) Ten (*b*) Eight
   (*c*) Six (*d*) Five
7. The New Economic Policy put an end to the 'License Raj' by removing licensing restrictions for all industries except for 18 that 'related to:
   (*a*) Security and strategic concerns
   (*b*) Social reasons
   (*c*) Problems related to safety and overriding environmental issues
   (*d*) All of the above
8. In July, 1991 the Indian government devalued the rupee by between _____.
   (*a*) 14 to 15 per cent (*b*) 15 to 16 per cent
   (*c*) 16 to 17 per cent (*d*) 18 to 19 per cent

Answers

1. (*a*) **2.** (*b*) **3.** (*c*) **4.** (*d*) **5.** (*d*) **6.** (*b*) **7.** (*d*) **8.** (*d*)

NITI AAYOG: A BOLD STEP FOR TRANSFORMING INDIA

On 1st January 2015, the apex policy making body namely Panning Commission, was replaced by the National Institution for Transforming India (NITI) Aayog. The major objective of such a move was to spur innovative thanking by objective 'experts' and promote 'co-operative federalism' by enhancing the voice and influence of the states' NITl Aayog is expected to serve as a 'Think Tank' of the government [and] a 'directional and policy dynamo'.

NiTi Aayog will work towards the following objectives*:

1. To evolve a shared vision of national development priorities, sectors and strategies with the active involvement of states.
2. To foster cooperative federalism through structured support initiatives and mechanisms with the states on a continuous basis, recognising that strong states make a strong nation.
3. To develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.
4. To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.
5. To pay special attention to the sections of our society that may be at risk of not benefiting adequately from economic progress.
6. To design strategic and long-term policy and programme frameworks and initiatives, and monitor their progress and their efficacy.
7. To provide advice and encourage partnerships between key stakeholders and national and international like minded think tanks, as well as educational and policy research institutions.
8. To create a knowledge, innovation and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.
9. To offer a platform for the resolution of inter-sectoral and inter departmental issues in order to accelerate the implementation of the development agenda.
10. To maintain a state-of-the-art resource centre, be a repository of research on good governance and best practices in sustainable and equitable development as well as help their dissemination to stake-holders.
11. To actively monitor and evaluate the implementation of programmers and initiatives, including the identification of the needed resources so as to strengthen the probability of success and scape of delivery.
12. To focus on technology up gradation and capacity building for implementation of programmes and initiatives.
13. To undertake other activities as may be necessary in order to further the execution of the national development agenda, and the objectives mentioned above.

❑ **The key initiatives of NITI Aayog are:**

1. 'LIFE' which envisions replacing the prevalent 'use-and-dispose' economy
2. National Data and Analytics Platform (NDAP) facilitates and improves access to Indian government data
3. Shoonya campaign aims to improve air quality in India by accelerating the deployment of electric vehicles
4. E-Amrit is a one-stop destination for all information on electric vehicles
5. India Policy Insights (IPI)
6. 'Methanol Economy' programme for reducing India's oil import bill, greenhouse gas emissions, and converting coal reserves and municipal solid waste into methanol, and
7. 'Transforming India's Gold Market' recommends measures for tapping into the potential of the sector and provides a stimulus to exports and economic growth.

Questions

1. When was NITI AAYOG established?

(*a*) 1st January 2013 (*b*) 15th August 2013

(*c*) 1st January 2015 (*d*) 15th August 2015

2. To develop the mechanism to formulate credible plans at village level and aggregate these progressively at higher level of government is an objective of _____. **[June 2024]**

(*a*) Ministry of rural development

(*b*) NITI Aayog

(*c*) Commission of policy and planning

(*d*) Planning commission

3. Think tank of the Government of India, that replaced the planning Commission, is _____.

(*a*) Mission Commission (*b*) NITI AAYOG

(*c*) NITI Commission (*d*) None of these

Answers

1. (*c*) **2.** (*b*) **3.** (*b*)

THE CURRENT STATE OF THE INDIAN ECONOMY: A BRIEF OVERVIEW

On account of the enormity of the economic phenomena and the dynamic nature of economic variables, it is not possible to have an up-to-date and comprehensive documentation on the current state of the economy. Given the constraints of the unit, an attempt is made in the following sections to present the broad nature of the present day Indian economy based on the three sectors namely, primary, secondary and tertiary.

I. The Primary Sector

According to the latest estimates, 47 per cent of India's population is directly dependent on agriculture for living. It also contributes a significant figure to the Gross Domestic Product (GDP). Gross Value Added by the agriculture and allied sector was 18 8% in 2021-22 (until 31 January, 2022).

The index numbers of agricultural production m 2021 -22 (base: triennium ending 2007- 08 = 100) for categories namely, all crops, food-grains, cereals, wheat and coarse cereals was above 140; and that of rice and pulses was 138.7 and 196.2 respectively. For non - food grains, it was 142.9. These figures show sustained increase in agricultural output. Food grains production has reached 315.7 million tonnes in 2021 -22. Private investment in agriculture has increased to 9.3% in 2020-21.

As per the economic survey, 2022-23, agriculture remained robust, recording a growth of 3.5 percent in 2022-23, driven by buoyant rabi sowing and allied activities. The performance of the agriculture and allied sectors has been buoyant over the past several years, much of which is on account of the measures taken by the government to:

- augment crop and livestock productivity.
- ensure certainty of returns to the farmers through price support (The Minimum Support Price (MSP) of all 23 mandated crops is fixed at 1.5 times of all India weighted average cost of production).

- Promote crops diversification,
- improve market infrastructure through the impetus provided for the setting up of farmer-producer organisations and
- promotion of investment in infrastructure facilities through the Agriculture Infrastructure Fund.

India has achieved a remarkable shift from a food deficient and import dependent nation during the early nineteen sixties to a food exporting nation. India is among the top ten exporters of agricultural products in the world. Export of agricultural and allied products has witnessed significant increase during the last few years and touched an all-time peak of 374611 crore during the last one year. Exports of agricultural and processed food products rose by 25 percent within six months of the current financial year 2022-23 (April-September) in comparison to the corresponding period in 2021-22. Agricultural and Processed Food Export Development Authority (APEDA) is entrusted with the responsibility of export promotion of agri-products.

A number of liberalisation measures are adopted by the government. The Government of India has allowed 100% FDI in marketing of food products and in food product E-commerce under the automatic route. Considering the diverse needs of the agricultural sector and the larger farming community, a large number of interventions are undertaken by different governments. A few such recent measures are:

- **Importance:**
  - Largest source of livelihood.
  - Directly supports 47% of the population.
  - Contributes 18.80% to GDP.
- **Achievements:**
  - **Top Producer:** World's largest producer of milk, pulses, jute, and spices.
  - **Major Areas:** Largest area planted under wheat, rice, and cotton.
  - **Second Largest Producer:** Fruits, vegetables, tea, farmed fish, cotton, sugarcane, and more.
  - **Food Market:** 6th largest food and grocery market globally.
  - **Cattle Herd:** World's largest buffalo herd.
  - **Food Grains Production:** 315.7 million tonnes in 2021-22.
  - **Private Investment:** Increased to 9.3% in 2020-21.
  - **Sector Growth:** 3.50% growth in 2022-23.
  - **Exports:** All-time peak of ₹3,74,611 crore; 25% increase in the first half of 2022-23.
- **Government Measures:**
  1. **100% FDI in Food Marketing:** Allowed under the automatic route.
  2. **PM KISAN:** Income support for farmers.
  3. **Minimum Support Price (MSP):** Fixed at 1.50 times the cost of production.
  4. **Institutional Credit:** Concessional rates for agriculture.
  5. **Launch of National Mission for Edible Oils**
  6. **PMFBY:** Insurance scheme for crop loss/damage.
  7. **MIDH:** Integrated Development of Horticulture.
  8. **Soil Health Cards:** Provision for farmers.
  9. **PKVY:** Promotes organic farming.

10. **Agri Infrastructure Fund:** Debt financing for post-harvest and community farming projects.
11. **Farmer Producer Organizations (FPOs):** Promotes better income through organisation.
12. **Per Drop More Crop (PDMC):** Increases water use efficiency.
13. **Micro Irrigation Fund:** Established.
14. **Agricultural Mechanisation:** Various initiatives.
15. **E-NAM:** Electronic trading portal for unified national market for agricultural commodities.
16. **Kisan Rail:** Enhances logistics for farm produce.
17. **Start-up Ecosystem:** Creation in agriculture and allied sectors.

Despite phenomenal increase in output of both food crops and commercial crops, Indian agriculture faces many issues such as:

- Indian agriculture is dominated by small and medium farmers. Small and fragmented landholdings, low farm productivity and subsistence farming result in very little marketable surplus and the consequent lower income levels of the agriculturists. These also reduce their ability to participate in the domestic as well as export market.
- Indian agriculture is resource intensive, cereal centric and regionally biased. There is increasing stress on water resources and soil fertility. Unscientific and wasteful agricultural practices lead to desertification and land degradation in many parts of the country.
- Inadequate agro-processing infrastructure and failure to build competitive value chains from producers to urban centers and export markets.
- Sluggish agricultural diversification to higher-value commodities.
- Inadequate adoption of environmentally sustainable and climate resistant new farm technology.
- Poor adoption of new agricultural technologies.
- Lopsided marketing practices and ineffective credit delivery.
- Complexities associated with adaptation to climate change disturbances.
- High food price volatility.
- Heavy dependence on monsoons and loss of crops and livelihood due to vagaries of nature.
- Issues related to marketing and warehousing of agricultural products.
- Inability to tap the full export potential of primary as well as value added products.
- Inability to effectively channelise huge surpluses in some commodities to alternative profitable destinations.
- Inadequate post-harvest infrastructure and management practices.
- Incidence of poverty and malnutrition.

II. The Secondary Sector

The Indian industry holds a significant position in the Indian economy contributing about 30 percent of total gross value added in the country and employing over 12.1 crores of people. The industrial sector in India broadly comprises of manufacturing, heavy industries, fertilisers, pharmaceuticals, chemicals and petrochemicals, oil and natural gas, food processing, mining, defence products, textiles, retail, micro, small & medium enterprises, cottage industries and tourism. The share of informal sector in the economy is more than 50% of GVA. Rapid industrial growth of domestic industries and diversification of industrial structure are essential elements for sustainable economic growth. The development of a robust manufacturing sector is a key priority of the Indian Government.

A detailed discussion on industrial development is beyond the scope of this unit. Starting with the industrial growth figures, we shall briefly touch upon the general aspects related to industries. In India, industrial production measures the output of businesses integrated in industrial sector of the economy. Manufacturing is the most important sector and accounts for 78 percent of total production. The manufacturing GVA at current prices was estimated at US$ 77.47 billion in the third quarter of financial year 2021-22 and has contributed around 16.3% to the nominal GVA during the past ten years. In 2022- 23 (until September 2022), the combined index of eight core industries* stood at 142.8 driven by the production of coal, refinery products, fertilisers, steel, electricity and cement industries. In Jan 31, 2023 the Manufacturing Purchasing Managers' Index (PMI) in India stood at 55.4. India's rank in the Global Innovation Index (GII) improved to 40th in 2022 from 81st in 2015.

[*ICI measures combined and individual performance of production of eight core industries viz. Coal, Crude Oil, Natural Gas, Refinery Products. Fertilisers, Steel, Cement and Electricity. The Eight Core Industries comprise 40.27 percent of the weight of items included in the Index of Industrial Production (IIP)].

The Department for Promotion of Industry and Internal Trade (DPIIT) has a role in the formulation and implementation of industrial policy and strategies for industrial development in conformity with the development needs and national objectives. Ever since independence, many innovative schemes are undertaken by different governments from time to time to boost industrial performance. Some of the policies are presented below:

- Introduction of goods and services tax (GST) on 1 July 2017 as a single domestic indirect tax law for the entire country replacing many indirect taxes in India such as the excise duty, VAT, services tax, etc.
- Reduction of corporate tax to domestic companies giving an option to pay income-tax at the rate of 22% subject to condition that they will not avail any exemption/incentive.
- 'Make in India' is a 'Vocal for Local' initiative launched in 2014 to facilitate investment, foster innovation, build excellent infrastructure and make India a hub for manufacturing, design and innovation. Make in India 2.0' is now focusing on 27 sectors, which include 15 manufacturing sectors and 12 service sectors.
- 'Ease of Doing Business' with key focus areas as simplification of procedures, rationalisation of legal provisions, digitization of government processes, and decriminalization of minor, technical or procedural defaults. India ranks 63rd in the World Bank's annual Doing Business Report (DBR), 2020 as against 77th rank in 2019 registering a jump of 14 ranks.
- **National Single Window System's Purpose:** A one-stop-shop for investor-related approvals and continuous facilitation and support to investors.
- **PM Gati Shakti National Master Plan's Objective:** Integrated planning of multi-modal infrastructure to reduce logistics costs through data-based decision-making.
- **National Logistics Policy (NLP)'s Goal:** Lower logistics costs in India.
- **Production Linked Incentive (PLI) Scheme's Purpose:** Enhance manufacturing capabilities and export competitiveness in 14 key sectors to promote 'Atmanirbhar' (self-reliant) India.
- **Industrial Corridor Development Programme's Focus:** Develop greenfield industrial regions with sustainable infrastructure and 'plug and play' facilities.
- **FAME-India Scheme's Objective:** Promote the manufacturing of electric and hybrid vehicle technology.

- **Udyami Bharat's Purpose:** Empower Micro, Small, and Medium Enterprises (MSMEs).
- **PM Mega Integrated Textile Region and Apparel (PM MITRA)'s Goal:** Ensure world-class infrastructure in the textiles sector and boost FDI and local investment.
- **FDI Regulations Details:** 100% FDI under automatic route allowed for coal mining, coal sale, and insurance intermediaries.
- **Foreign Investment Facilitation Portal (FIFP) Replaced FIPB:** Simplified FDI approval process, leading to a 39% increase in FDI.
- **Remission of Duties and Taxes on Export Products (RODTEP)'s Purpose:** Replace MEIS to boost exports by providing rebates on all hidden central, state, and local duties/taxes/levies.
- **Start-up India Programme's Objective:** Facilitate ideas and innovation; India's rank in GII is 40th in 2022.
- **Emergency Credit Line Guarantee Scheme (ECLGS)'s Objective:** Provide fully guaranteed emergency credit lines to monitor lending institutions.

India is gearing up for the fourth industrial revolution or Industry 4.0 in which manufacturing transformation needs to integrate new technologies such as cloud computing, loT, machine learning, and artificial intelligence (Al). The National Manufacturing Policy which aims to increase the share of manufacturing in GDP to 25 percent by 2025 is a step in this direction.

India is an attractive hub for foreign investments in the manufacturing sector. Over the last few years. FDI equity inflows in the manufacturing sector have been progressively rising. India continues to open up its sectors to global investors by raising FDI limits and removing regulatory barriers in addition to developing infrastructure and improving the business environment. According to the Department for Promotion of Industry and Internal Trade (DPIIT), India received a total foreign direct investment (FDI) inflow of US$ 58.77 billion in 2021-22.

There are many challenges to the industrial sector; a few of these are enumerated below:

- Shortage of efficient infrastructure and manpower and consequent reduced factor productivity.
- Reliance on imports, exchange rate volatility and associated time and cost overruns.
- The MSME sector is relatively less favourably placed in terms of credit availability.
- Industrial locations established without reference to cost-effective points tend to experience unsustainable cost structure.
- Heavy losses, inefficiencies, lower productivity and unsustainable returns plaguing public sector industries.
- Strained labour-management relations and loss of man hours.
- Lower export competitiveness, slowing external demand and imposition of non tariff barriers by other countries.
- Global supply chain disruptions and uncertainties.
- Inflation and associated macro economic developments leading to input cost escalations and lower demand.
- Global slowdown and related negative sentiments affecting investment.
- Aggressive tightening of monetary policy and increases in cost of credit.
- High and increasing fuel prices, and
- Mounting presence of informal sector.

III. The Tertiary Sector

India's services sector covers a wide variety of activities.

BOX. The broad classification of services as per the National Industrial Classification, 2008	
1.	Wholesale and retail trade and repair of vehicles
2.	Transportation and storage
3.	Accommodation and food service activities
4.	Information and communication
5.	Financial and insurance activities
6.	Real estate activities
7.	Professional, scientific and technical activities
8.	Administrative and support services
9.	Public administration, defence and compulsory social security
10.	Education
11.	Human health and social work activities
12.	Arts, entertainments and recreation
13.	Other service activities
14.	Activities of householders as employers, undifferentiated goods and services producing activities of households for own use
15.	Activities of extra territorial organisations and bodies.

A remarkable feature of the post reform Indian economy is the unconventional experience of bypassing the secondary sector in the growth trajectory by a shift from agriculture to the services sector.

The services sector is the largest sector of India and accounts for 53.89% of total India's GVA. It has the highest labour productivity and is the fastest growing sector. The exceptionally rapid expansion of knowledge-based services such as professional and technical services has contributed substantially to the growth of tertiary sector.

India is among the top 10 World Trade Organisation (WTO) members in service exports and imports. India's services exports at US$ 27.0 billion recorded robust growth in November 2022 due to software, business, and travel services.

To ensure the liberalisation of investment in various industries, the government has permitted 100 percent foreign participation in telecommunication services through the Automatic Route including all services and infrastructure providers.

- **Contribution to Economy:** The service sector is the largest sector in India, contributing 53.89% to the country's Gross Value Added (GVA). The GVA of the service sector was estimated at ₹96.54 lakh crore for 2020-21.
- **Key Characteristics**
  - The service sector is the fastest-growing sector in India.
  - It has the highest labour productivity compared to other sectors.
  - **Telecommunications:** 100% foreign participation allowed through the Automatic Route.
  - **Insurance Sector:** The FDI ceiling was increased from 49% to 74%, enhancing foreign investment opportunities.
  - Government Measures to Support the Sector.

- National Single Window System Provides a one-stop-shop for investor-related approvals and facilitates continuous support.

FDI Policies

1. Permits 100% foreign participation in telecommunications.
2. Increases FDI limit in insurance to 74%.

Conclusion:

The India Development Update (IDU) of the World Bank published in November 2022, observes that India had to face an unusually challenging external environment following the Russia-Ukraine war, increased crude oil and commodity prices, persistent global supply disruptions, tighter financial conditions and high domestic inflationary pressures. Despite all these, the real GDP of India grew by 6.3 percent in July-September of 2022-23 driven by strong private consumption and investment. The report observes that India's economy is relatively more insulated from global spillovers than other emerging markets and is less exposed to international trade flows on account of reliance on its large domestic market. As such, compared to other emerging economies, India is much more resilient to withstand adversities in the global arena.

Questions

1. India has the world's _____ area planted under wheat, rice and cotton.

(*a*) Smallest (*b*) Largest

(*c*) Negligible (*d*) Significantly low

2. India is the world's _____ producer of fruits, vegetables, tea, farmed fish, cotton, sugarcane, wheat, rice, cotton and sugar.

(*a*) Largest (*b*) Second-largest

(*c*) Third Largest (*d*) Fifth

3. Indian food and grocery market is the world's _____ largest, with retail contributing 70% of the sales.

(*a*) Third (*b*) Fourth

(*c*) Sixth (*d*) None of these

4. India has the world's _____ cattle herd (buffaloes).

(*a*) Largest (*b*) Second-largest

(*c*) Third Largest (*d*) Fifth

5. According to the latest estimates, _____ of India's population is directly dependent on agriculture for living.

(*a*) 30% (*b*) 40%

(*c*) 47% (*d*) 72%

6. India is among the top _____ exporters of agricultural products in the world.

(*a*) Three (*b*) Five

(*c*) Ten (*d*) Eleven

7. APEDA - full form **[June 2024]**

(*a*) Agricultural product export development agency

(*b*) Agricultural produce economic development association

(*c*) Animal product export development authority

(*d*) Agricultural & processed food export development authority

8. Paramparagat Krishi Vikas Yojana (PKVY) is the scheme for supporting and promotin_____.

(*a*) Organic farming

(*b*) Improvement of soil health

(*c*) Traditional farming methods of agriculture

(*d*) Both (*a*) and (*b*)

9. PDMC scheme to increase water use efficiency at the farm level. What is the full form of PDMC?

(*a*) Per Drop More Crop

(*b*) Perfect Drop More Crop

(*c*) Perfect Development Mission Crop

(*d*) None of these

10. E-NAM is _____.

(*a*) An electronic name card given to citizens of India

(*b*) National Agriculture Market with the objective of creating a unified national market for agricultural commodities.

(*c*) A pan-India electronic trading portal which networks the existing APMC mandis

(*d*) Both (*b*) and (*c*) above

11. What does the E-NAM (Electronic National Agriculture Market) aim to achieve? **[June 2024]**

(*a*) Increase farm productivity

(*b*) Create a unified nationa market for agricultural commodities

(*c*) Provide financial support to farmers

(*d*) Promote organic farming

12. E-amrit is related to_____. **[June 2024]**

(*a*) One-stop destination for all information on electric vehicles

(*b*) Facilitates and improve access to Indian government data

(*c*) Improves air quality in India by accelerating the deployment of electronic vehicles.

(*d*) Provides a stimulus to exports and economic growth

13. India's rank in the Global Innovation Index (GII) improved to 40th in in 2015. 2022 from

(*a*) 71st (*b*) 81st

(*c*) 91st (*d*) 99th

14. In terms of Ease of Doing Busi-ness in 2020 India ranks_____.

(*a*) 63 (*b*) 77

(*c*) 45 (*d*) None of the above

15. _____ is to facilitate data-based decisions related to integrated planning of multimodal infrastructure, thereby reducing logistics cost.

(*a*) PM Gati Shakti National Master Plan

(*b*) Mission Gati Shakti National Master Plan

(*c*) PM Multi-modal National Master Plan

(*d*) PM Integrated Plan for Multi-Modal

16. PM Gati Shakti is related to **[June 2024]**

(*a*) Empowerment of MSMEs

(*b*) Data based decisions related to in tegrated planning of multimoda infrastructure thereby reducing the logistic cost

(*c*) Manufacturing of electric and hybrid vehicle technology

(*d*) Automatic route for FDI

17. FAME-India Scheme aims to:

(*a*) Enhance faster industrialization through private participation

(*b*) To promote manufacturing of electric and hybrid vehicle technology

(*c*) To spread India's fame among its trading partners

(*d*) None of the above

18. _____ aims at the empowerment of Micro Small and Medium Enterprises (MSMEs).

(*a*) Naya Bharat (*b*) Viksit Bharat

(*c*) Udyog Bharat (*d*) Udyami Bharat

19. The foreign Investment Promotion Board (FIPB) _____.

(*a*) A government entity through which inward investment proposals were routed to obtain required government approvals

(*b*) No more exists as the same is replaced by a new regime namely Foreign Investment Facilitation Portal

(*c*) No more exists as all inward in-vestments are through automatic route and need no approval

(*d*) Is the body which connects different ministries in respect of foreign portfolio investments

20. The Government of India has allowed 100% FDI in marketing of food products and in food product E-commerce under the _____ route. **[June 2024]**

(*a*) Automatic (*b*) Green channel route

(*c*) Priority route (*d*) Trade route

21. Merchandise Exports from India Scheme was replaced by_____.

(*a*) Remission of Duties and Taxes on Export Products (RODTEP) in 2021

(*b*) National Logistics Policy (NLP) in 2020

(*c*) Remission of Duties and Taxes on Export Products (RODTEP) in 2019

(*d*) None of the above

22. Which of the following Sector contributes maximum to India's Gross value added? **[June 2024]**

(*a*) Primary sector (*b*) Secondary sector

(*c*) Tertiary sector (*d*) All of the above

Answers

1. (*b*) **2.** (*b*) **3.** (*c*) **4.** (*a*) **5.** (*c*) **6.** (*c*) **7.** (*d*) **8.** (*d*) **9.** (*a*) **10.** (*d*)
11. (*b*) **12.** (*a*) **13.** (*b*) **14.** (*a*) **15.** (*a*) **16.** (*b*) **17.** (*b*) **18.** (*d*) **19.** (*b*) **20.** (*a*)
21. (*a*) **22.** (*c*)

Questions

1. Which of the following are fiscal reforms? **[May 2025]**

i. Ensuring better tax compliance

ii. Reinvestment of funds in more profitable options

iii. Encouraging private sector participation

iv. Thrust on curbing government expenditure

(*a*) Only i and iii (*b*) Only i, ii, iii

(*c*) Only i, iii, iv (*d*) Only i, ii, iv

2. Which of the following best describes the preBritish Indian economy? **[May 2025]**

(*a*) Dependent on imports for goods

(*b*) Self-sufficient villages and cities which were centers of commerce

(*c*) Focus on industrial production

(*d*) Dominated by foreign trade

3. The trade policy reforms include_____. **[May 2025]**

(*a*) Inclusion of licensing restrictions for imports

(*b*) Removal of licensing procedure for imports

(*c*) Complication of tariffs.

(*d*) Inclusion of quantitative restrictions on imports and exports

4. Which initiative by NITI Aayog aims to promote **[May 2025]**

(*a*) E-Amrit (*b*) Shoonya Campaign

(*c*) Methanol Economy Program (*d*) India Policy Insights (IPI)

5. An appreciation of currency or strong currency makes the domestic currency more therefore it can be exchanged for a amount of foreign currency. **[May 2025]**

(*a*) Weaker, smaller (*b*) Valuable, larger

(*c*) Weaker, larger (*d*) Valuable, smaller

6. What percentage of India's population depends on agriculture for livelihood as per latest estimates? **[May 2025]**

(*a*) 18% (*b*) 25%

(*c*) 47% (*d*) 60%

7. Which government scheme focuses on providing financial support to farmers suffering crop loss or damage ? **[May 2025]**

(*a*) PM KISAN

(*b*) Pradhan Mantri Fasal Bima Yojana (PMFBY)

(*c*) Soil Health Card Scheme

(*d*) Paramparagat Krishi Vikas Yojana (PKVY)

8. Which regime replaced the Foreign Investment Promotion Board (FIPB)? **[May 2025]**

(*a*) SEBI (*b*) FIF Portal

(*c*) NITI Aayog (*d*) DPIIT

9. What was India's rank in 2022 as per Global Innovation Index? **[May 2025]**

(*a*) 81st (*b*) 40th

(*c*) 63rd (*d*) 25th

10. Which policy replaced the Merchandise Exports from India Scheme (MEIS) in 2021? **[May 2025]**

(*a*) NDAP (*b*) GST

(*c*) PLI Scheme (*d*) RoDTEP

11. The early liberalization and reforms started in India in _____ . **[May 2025]**

(*a*) 1980s (*b*) 1970s

(*c*) 1960s (*d*) 1990s

12. _____ facilitates and improves access to Indian Government data. **[Jan. 2025]**

(*a*) E-Amrit (*b*) MIDH

(*c*) NDAP (*d*) E-NAM

13. Which scheme is aimed at promoting manufacture of electric and hybrid vehicle technology and to ensure sustainable growth for the same? **[Jan. 2025]**

(*a*) FAME India (*b*) E-Amrit

(*c*) FIPB (*d*) PDMC

14. Which Act was initially aimed for regulation of large firms which had relatively large market power? **[Jan. 2025]**

(*a*) RBI Act (*b*) FEMA

(*c*) RERA (*d*) MRTP Act, 1969

15. From which year onwards, India followed the managed floating exchange rate system? **[Jan. 2025]**

(*a*) 1990 (*b*) 1991

(*c*) 1995 (*d*) 1993

16. Minimum Support Price (MSP) is fixed by the Government of India a _____ of the cost of production. **[Jan. 2025]**

(*a*) Two and a half times (*b*) Half

(*c*) One and a half time (*d*) Twice

17. Which policy was adopted to ensure world class industrial infrastructure which would attract cutting edge technology and boost FDI and local investment in the textile sector? **[Jan. 2025]**

(*a*) PM-MITRA

(*b*) PM Gati Shakti National Master Plan

(*c*) National Logistic Policy

(*d*) Production Linked Incentive (PLI) Scheme

18. During the British period modern industrial sector saw lopsided growth with the dominance of _____ industries. **[Jan. 2025]**

(*a*) Wool and cotton (*b*) Nylon and silk

(*c*) Cotton and jute (*d*) Silk and cotton

19. Statutory recognition was granted to_____ to facilitate mobilization of adequate resources and their efficient allocation in the capital markets. **[Jan. 2025]**

(*a*) RBI (*b*) BSE

(*c*) SEBI (*d*) NSE

20. In which of the following sector FDI is not permissible ? **[Jan. 2025]**

(*a*) Telecom (*b*) Aviation

(*c*) Atomic energy (*d*) Defense

21. Production of milk is included in which sector? **[Jan. 2025]**

(*a*) Tertiary Sector (*b*) Service Sector

(*c*) Primary Sector (*d*) Secondary Sector

Answers

1. (*c*) **2.** (*b*) **3.** (*b*) **4.** (*b*) **5.** (*b*) **6.** (*c*) **7.** (*b*) **8.** (*b*) **9.** (*b*) **10.** (*d*)
11. (*a*) **12.** (*c*) **13.** (*a*) **14.** (*d*) **15.** (*d*) **16.** (*c*) **17.** (*a*) **18.** (*c*) **19.** (*c*) **20.** (*c*)
21. (*c*)

JANUARY, 2026 QUESTION PAPER WITH ANSWER KEY

1. If cross-price elasticity between two products is zero, the goods are best described as:

(*a*) Close substitutes
(*b*) Totally unrelated
(*c*) Perfect substitutes
(*d*) Complements to each other

2. What does the term entrepreneur in economics refers to:

(*a*) The person combining factors of production, bearing risk, and innovating.
(*b*) The person who only owns land or property.
(*c*) The head of the marketing department.
(*d*) The investor in machinery and products.

3. Capital performs its function in production in a single use and is not available for further use. Choose the correct option.

(*a*) Real
(*b*) Circulating
(*c*) Tangible
(*d*) Intangible

4. Which of the following is the effect of non-price determinants on the Leftward Shift in Demand Curve?

(*a*) Rise in the price of a substitute good.
(*b*) Rise in the price of a complement.
(*c*) An Increase in number of buyers.
(*d*) An expectation that the price will rise in the future.

5. Which of the following is NOT a correct statement regarding opportunity cost?

(*a*) Is always recorded in the books of account.
(*b*) Relates to sacrificed alternatives.
(*c*) Represents the value of foregone opportunity.
(*d*) Is a useful concept in long-term cost calculations.

6. Which of the following is not true for long run equilibrium of a perfectly competitive industry?

(*a*) All firms in the industry are in equilibrium.
(*b*) All firms are earning super normal profits.

(*c*) The price of the product is such that quantity supplied by the industry is equal to the quantity demanded by consumers.

(*d*) Plants are used to full capacity in the long run.

7. A market characterized by a small number of large buyers and is mostly relevant to factor market is termed as:

(*a*) Duopoly (*b*) Monopsony

(*c*) Oligopsony (*d*) Bilateral monopoly

8. Purchase of foreign currency contract at future rate from bank is a transaction involving:

(*a*) Forward Market (*b*) Regulated Market

(*c*) Spot Market (*d*) Retail Market

9. In a monopoly market if ATC > AR:

(*a*) Firm will earn normal profits. (*b*) Firm will earn super normal profits.

(*c*) Firm will earn abnormal profit. (*d*) Firm will incur losses.

10. The cross elasticity of demand for monopolist's product and any other product is:

(*a*) 1 (*b*) Greater than 1

(*c*) Less than 1 (*d*) Zero or very small

11. Operating surplus includes:

(*a*) Rent, Interest and Compensation of employees

(*b*) Rent, Interest and Profit

(*c*) Rent, Profit and Compensation of employees

(*d*) Rent, Interest and Taxes

12. Use the following data to answer question:

Particulars	₹ Crores
Operating surplus	2,500
Mixed income of Self Employed	1,500
Rent	680
Profit	720
Interest	1,100
Net indirect tax	400
Consumption of fixed capital	300
Compensation of employees	1,000

Calculate GDP_{FC}.

(*a*) ₹5,000 crores (*b*) ₹7,100 crores

(*c*) ₹7,500 crores (*d*) ₹5,300 crores

13. Use the following data to answer question:

Particulars	₹ Crores
Operating surplus	2,500
Mixed income of Self Employed	1,500
Rent	680
Profit	720
Interest	1,100
Net indirect tax	400
Consumption of fixed capital	300
Compensation of employees	1,000

Calculate GDP_{MP}.

(*a*) ₹5,700 crores (*b*) ₹5,000 crores

(*c*) ₹8,200 crores (*d*) ₹7,500 crores

14. Calculate real GDP if nominal GDP is 450 and price index is 120.

(*a*) 540 (*b*) 350

(*c*) 375 (*d*) 475

15. Tobin, in his theory of liquidity preference function, framed the relationship between which of the following?

(*a*) Demand for money and supply of money.

(*b*) Rate of inflation and demand for money.

(*c*) Rate of interest and demand for money.

(*d*) Rate of interest and disposable income.

16. Given the required reserve ratio (RRR) is 8% and 12.5% for every 1,00,000 deposited in the banking system, compute the credit multipliers.

(*a*) 12.5 : 8 (*b*) 8; 12.5

(*c*) 12.5; 10 (*d*) 8; 10

17. Which equation accurately represents the expanded version of the equation of exchange?

(*a*) P = MV (*b*) P = M 'V'

(*c*) PT = MV + M 'V' (*d*) PT = MV – M 'V'

18. Speculative demand for money can be closely linked to which of the following situation?

(*a*) Unforeseen and unpredictable contingencies.

(*b*) Current transaction for business exchange.

(*c*) Mismatch between receipt of salary and household expenses.

(*d*) Attractive investment opportunity.

19. Which of the following is not a channel of monetary policy transmission?

(*a*) Saving and Investment channel (*b*) Cash-flow channel

(*c*) Exchange Rate channel (*d*) Open Market channel

20. What does a Brownfield investment in Foreign Direct Investment (FDI) imply:

(*a*) Developing entirely new infrastructure.

(*b*) Utilizing existing infrastructure by means of mergers, acquisitions or leasing.

(*c*) Forming partnerships with foreign companies.

(*d*) Establishing a new subsidiary in another country.

21. Which sector accounts for the largest recipient of FDI inflows in India?

(*a*) Service (*b*) Manufacturing

(*c*) Primary (*d*) Secondary

22. Which of the following was not a major reform introduced during the 1980s in India?

(*a*) Industrial delicensing (*b*) Formation of SEBI

(*c*) Currency demonetization (*d*) Implementation of MODVAT

23. Which initiative of the NITI Aayog is a one-stop destination for all information on electric vehicles?

(*a*) Shoonya Campaign (*b*) E-Amrit

(*c*) Methanol economy (*d*) Life

24. Make in India 2.0 focuses on

(*a*) 15 manufacturing and 12 service sectors

(*b*) 12 manufacturing and 15 service sectors

(*c*) 22 manufacturing and 18 service sectors

(*d*) 18 manufacturing and 22 service sectors

25. Which of the following industries is included in the eight core sectors assessed by the Index of Industrial Production (IIP)?

(*a*) Pharmaceuticals (*b*) Textiles

(*c*) Coal (*d*) Tourism

26. The product of price quantity ratio at a particular point on the demand curve and the reciprocal of the slope of the demand line is called:

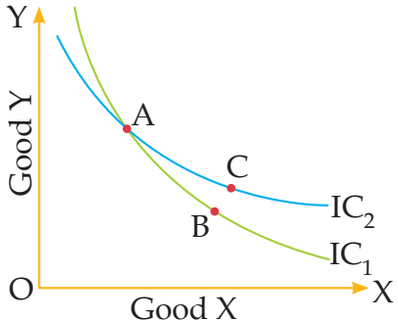
(*a*) Point clasticity

(*b*) Are elasticity

(*c*) Total outlay method of elasticity

(*d*) Total revenue method of elasticity

27. Consider the indifference curves given below. What can you infer about the relationship between Good X and Good Y?



(*a*) Good X and Good Y are perfect substitutes of each other

(*b*) Good X and Good Yare perfect complements

(*c*) The relationship between Good X and Good Y is logically absurd

(*d*) Good X and Good Y are same

28. When even after increase in price, total revenue remains the same the demand is said to be:

(*a*) Perfectly elastic (*b*) Elastic

(*c*) Inelastic (*d*) Unitary elastic

29. Which of these is the correct expression for Arc Elasticity?

(*a*) $(P_2 - P_1)/(P_2 + P_1) \times (Q_2 + Q_1)/(Q_2 - Q_1)$

(*b*) $(P_2 - P_1) \times (P_2 + P_1)/(Q_2 + Q_1) \times (Q_2 - Q_1)$

(*c*) $(P_2 + P_1)/(P_2 - P_1) \times (Q_2 - Q_1)/(Q_2 + Q_1)$

(*d*) $(P_2 + P_1) \times (P_2 - P_1)/(Q_2 - Q_1) \times (Q_2 + Q_1)$

30. First degree price discrimination in a monopolist market is based on:

(*a*) Attributes such as location

(*b*) Different quantities sold

(*c*) Each individual customer

(*d*) Different markets

31. In the kinked demand curve scenario for oligopoly, what happens when a firm raises its price above the prevailing level?

(*a*) Competitors follow and raise prices

(*b*) The demand becomes perfectly inelastic

(*c*) The firm loses market share as competitors do not follow

(*d*) The demand curve becomes horizontal

32. If the price elasticity of demand is 1, MR will be

(*a*) 0 (*b*) Positive

(*c*) 1 (*d*) Negative

33. Consider a monopolist selling in two markets. At a price of 60, the elasticity of demand in market A is 5 and in market B is 6. Calculate the marginal revenue in both markets and determine which market should receive more output.

(*a*) Market A, MR = 48 Market B, MR = 50 output to market B should increase

(*b*) Market A, MR = 50 Market B, MR = 48 output to market A should increase

(*c*) Both markets have equal MR

(*d*) Neither market should change output

34. Which characteristic is shared by monopoly and monopolistic competition, but NOT by perfect competition?

(*a*) Price equal to marginal cost

(*b*) Supernormal profits in long run

(*c*) Price higher than marginal cost

(*d*) No selling costs

35. Which of the following factor of production is not included in calculating the National Income?

(*a*) Pensions of retired workers

(*b*) Wages of labourers

(*c*) Employers' contribution to provident fund

(*d*) Interest on loans availed for productive services

36. If marginal propensity to consume is 0.6 and marginal propensity to import is 0.04, what is the value of the foreign trade multiplier?

(*a*) 3.33

(*b*) 2.27

(*c*) 3.66

(*d*) 2.54

37. If Net Factor Income from Abroad is negative:

(*a*) GNP_{MP} would be smaller than GDP_{MP}

(*b*) Gross Income earned by country's citizen and companies abroad is negative

(*c*) NNP_{MP} Would be greater than GNP_{MP}

(*d*) Huge depreciation component in NNP_{MP}

38. National income of the economy which is either consumed or saved is equal to the:

(*a*) Aggregate supply

(*b*) Marginal propensity to consume

(*c*) Average supply

(*d*) Marginal propensity to save

39. Given the saving function S = –20 + 0.5 Y and autonomous investment crores, what is the consumption

(*a*) ₹240 crores

(*b*) ₹140 crores

(*c*) ₹340 crores

(*d*) ₹440 crores

40. What is Net Divisible Pool (NDP)?

(*a*) Total funds from which loans can be taken by various states.

(*b*) Total loans recovered from IMF to be divided among center and states.

(*c*) Distribution of total revenue of a nation among various sectors of the economy.

(*d*) Portion of gross tax revenue which is distributed between the center and the states.

41. Using below mentioned data, answer Question.

Revenue receipts	₹25,000 Cr
Expenses on revenue account	₹30,000 Cr
Expenses on capital account	₹30,000 Cr
Estimated total expenditure	₹60,000 Cr
Estimated total reventic	₹54,000 Cr

Calculate the budgetary deficit.

(*a*) ₹25,000 Crores

(*b*) ₹5,000 Crores

(*c*) ₹6,000 Crores

(*d*) ₹12,000 Crores

42. Using below mentioned data, answer Question.

Revenue receipts	₹25,000 Cr
Expenses on revenue account	₹30,000 Cr
Expenses on capital account	₹30,000 Cr
Estimated total expenditure	₹60,000 Cr
Estimated total reventic	₹54,000 Cr

Calculate the revenue deficit:

(*a*) ₹5,000 Crores

(*b*) ₹12,000 Crores

(*c*) ₹1,000 Crores

(*d*) ₹8,000 Crores

43. Laissez faire approach advocated:

(*a*) Minimum government interference in or regulation of economic activity.

(*b*) Increase in government spending to combat the recessionary forces.

(*c*) Having a more active fiscal policy.

(*d*) Increasing taxes to curtail aggregate demand.

44. In India, public sector is limited to which of the following sectors?

(*a*) Railway transport and arms and ammunition.

(*b*) Railway transport and atomic energy.

(*c*) Atomic energy and arms and ammunition.

(*d*) Hazardous chemicals and narcotic drugs.

45. Introduction of prudential norms of accounting in respect of classification of assets, disclosure of income and provisions for bad debts in case of commercial banks is related to which of the following reform measures?

(*a*) Fiscal reforms
(*b*) Monetary and financial sector reforms
(*c*) Capital market reforms
(*d*) Trade policy reforms

46. Which of the following is a unique feature in the growth trajectory of the Indian economy?

(*a*) Shift from services to the agricultural sector.
(*b*) Shift from manufacturing to the services sector.
(*c*) Shift from agricultural to the manufacturing sector.
(*d*) Shift from agriculture to the services sector.

47. Which of following taxes has not been replaced by the Goods and Service Tax?

(*a*) VAT
(*b*) Income Tax
(*c*) Excise Duty
(*d*) Service Tax

48. How many crops are mandated to receive price support through "Minimum Support Price" (MSP)?

(*a*) 22
(*b*) 21
(*c*) 23
(*d*) 24

49. The price of a product is 100 per unit. If price falls by 20% the quantity increases by 120 units. The price elasticity of demand is –1. The new quantity demanded due to fall in price is:

(*a*) 480 units
(*b*) 680 units
(*c*) 600 units
(*d*) 720 units

50. Other things being equal, the demand for a good and the price of its complement has:

(*a*) Positive relationship
(*b*) Direct relationship
(*c*) Inverse relationship
(*d*) Proportional relationship

51. Predominance of bureaucracy and the resulting inefficiency and delays which may lead to corruption, red tapism is a demerit of:

(*a*) Capitalist economy
(*b*) Socialist economy
(*c*) Consumer sovereignty
(*d*) Normative economy

52. Consumer surplus is:

(*a*) What a consumer is ready to pay over what he actually pays.
(*b*) Necessaries and comforts needed by a consumer.
(*c*) Desire or wish to buy a commodity backed by adequate ability and willingness to pay.
(*d*) Actual demand by a consumer.

53. Which of the following are types of measurement of supply-elasticity?

I. Point elasticity
II. Inelasticity
III. Arc elasticity
IV. Perfect elasticity

(*a*) I only
(*b*) Both I and IV
(*c*) II only
(*d*) Both I and III

54. Which of the following is not an objective of WTO?

(*a*) To set and enforce rules for international trade.
(*b*) To maintain secrecy of decision making.
(*c*) To resolve trade disputes.
(*d*) To provide a forum for negotiating and monitoring further trade liberalization.

55. State policy aimed to protect domestic producers against foreign competition through the use of tariff, quotes and non-tariff policy instruments is called:

(*a*) Protectionism
(*b*) Safeguard
(*c*) Distortions
(*d*) Blanket cover

56. Which of the following currency is often referred to as the vehicle currency, in the foreign exchange market?

(*a*) US Dollar
(*b*) Euro
(*c*) Russian Ruble
(*d*) INR

57. What is the primary purpose of countervailing duties charged in an importing country?

(*a*) To counteract low quality of goods in importing countries.
(*b*) To neutralize artificially low prices charged by exporter resulting from export subsidies in their home country.
(*c*) To prevent tariff evasion by importers.
(*d*) To address variations in the quality of goods in importing country.

58. When a foreign investor having no previous experience initiates a FDI in a business which is not related to its existing business in its home country and is usually in the form of a joint venture with a foreign firm operating in the industry, it is known as a _____.

(*a*) Two way FDI
(*b*) Horizontal FDI
(*c*) Vertical FDI
(*d*) Conglomerate FDI

59. A curve which shows all the different combinations of inputs that can produce same level of output is known as:

(*a*) Marginal Cost Curve
(*b*) Isocost
(*c*) Isoquant
(*d*) Total Product Curve

60. Which of the following is core characteristic of an oligopoly?

(*a*) Efficient allocation of resources
(*b*) Lease advertising
(*c*) Unique product
(*d*) Interdependence between firms

61. If output increases from 60 units to 70 units, leading to an increase in total revenue from 100 to 120. What is the marginal revenue?

(*a*) ₹10 (*b*) ₹20

(*c*) ₹100 (*d*) ₹2

62. "Total Supply of land is perfectly inelastic from the point of view of the economy", it means:

(*a*) Its supply increases with increase in demand.

(*b*) Its supply is unaffected with change in demand.

(*c*) Its supply decreases with increase in demand.

(*d*) Its supply decreases with decrease in demand.

63. Markets where firms buy the resources they need like land, labour etc. are called:

(*a*) Product Markets (*b*) National Markets

(*c*) Factor Markets (*d*) Spot Markets

64. Which of the following is not a characteristic of contraction?

(*a*) Fall in level of investments

(*b*) Fall in employment levels

(*c*) Decrease in input demand pulls input prices down

(*d*) Bank credit expands

65. Which item is not included when calculating national income using the income method?

(*a*) Compensation of employees (*b*) Mixed income of self-employed

(*c*) Interest paid on consumption loans (*d*) Rent

66. Which of the following is not a lagging economic indicator?

(*a*) Unemployment (*b*) Corporate profits

(*c*) Labour cost per unit of output (*d*) Changes in stock price

67. Refer to the following data:

Sales:	₹1,000 Crores
Depreciation:	₹70 Crores
Opening stock:	₹100 Crores
Closing stock :	₹90 Crores
GST:	₹100 Crores

Intermediate consumption: ₹440 Crores

Based on the above data, compute the Gross Value Added at Market Price (GVA_{mp}).

(*a*) ₹380 crores (*b*) ₹620 crores

(*c*) ₹480 crores (*d*) ₹550 crores

68. Which of the following is not one of the three main macroeconomic goals for any nation:

(*a*) Universal education to all (*b*) Economic growth

(*c*) High level of employment (*d*) Price stability

69. Stagflation is:

(*a*) Increased taxes leading to reduced disposable income.

(*b*) Economic situation where inflation and unemployment exist side by side.

(*c*) Easy transmission of economic instability from one country to other countries.

(*d*) Improved economic stability.

70. GST is a:

(*a*) Production based taxation system

(*b*) Income based taxation system

(*c*) Turnover based taxation system

(*d*) Consumption based taxation system

71. Governments redistribution function leads to dead weight losses because:

(*a*) It leads to lower taxes on the rich for the government.

(*b*) It emphasizes on production of merit goods only.

(*c*) It acts as a disincentive to entrepreneurship and work.

(*d*) It decreases social security costs.

72. **Statement-1:** During recession, the government increases its expenditure or cuts down taxes.

Statement-2: Deficit budgets are expected to stimulate economic activity while surplus budget tends to slowdown economic growth.

(*a*) Both Statements-1 and 2 are correct.

(*b*) Statement-1 is correct while Statement-2 is incorrect.

(*c*) Statement-1 is incorrect while Statement-2 is correct.

(*d*) Both Statements-1 and 2 are incorrect.

73. Which of the following represents a technical measure within Non-Tariff Measures (NTMs)?

(*a*) Custom formalities

(*b*) Shipping requirements

(*c*) Production Processes

(*d*) Trade-related finance and Investment measures

74. Calculate the Nominal exchange rate considering the following data:

Real exchange rate	25
Domestic price index	140
Foreign price index	70

Choose the correct answer from the following options:

(*a*) 50.0 (*b*) 40.0

(*c*) 12.5 (*d*) 35.0

75. Which of the following is not a benefit of International Trade?

(*a*) Provides greater stimulus to innovative services.

(*b*) Trade provides access to new markets and new materials.

(*c*) Underprivileged countries will be less vulnerable to exploitation by corporations operating globally.

(*d*) Improvement in the quality of output of goods and services for emerging economies.

76. Which of the following is a combination of two policy instruments quotas and tariffs?

(*a*) Tariff rate quotas (*b*) Compound tariffs

(*c*) Mixed tariffs (*d*) Applied tariffs

77. Which of the following is not covered in micro economics?

(*a*) Product pricing

(*b*) Factor pricing

(*c*) The general price level and interest rates

(*d*) The economic conditions of a section of people

78. Precedence of property rights over human rights is a demerit of which type of economy?

(*a*) Micro economy (*b*) Macro economy

(*c*) Capitalist economy (*d*) Socialist economy

79. Which of the following is a normative statement?

(*a*) Public healthcare increases public expenditure.

(*b*) Higher interest rates as set by the government's economic policy will reduce house prices.

(*c*) If consumer income drops, consumers will have less money to spend.

(*d*) The government should provide healthcare for all.

80. Match the following:

Column A		Column B	
I.	Capitalist Economy	A.	Command Economy
II.	Socialist Economy	B.	High Degree of operative Efficiency
III.	Mixed Economy	C.	Encourages enterprise and Risk taking

(*a*) I-A, II-B, III-C (*b*) I-B, II-C, III-A

(*c*) I-B, II-A, III-C (*d*) I-C, II-A, III-B

81. Use the table to answer question:

Output	0	1	2	3	4	5	6
Total Cost (₹)	270	370	460	540	610	690	780

Average variable cost for 4 units of output is:

(*a*) ₹150 (*b*) ₹125

(*c*) ₹100 (*d*) ₹285

82. Use the table to answer question:

Output	0	1	2	3	4	5	6
Total Cost (₹)	270	370	460	540	610	690	780

The average fixed cost of 3 units of output is:

(*a*) ₹90 (*b*) ₹100

(*c*) ₹150 (*d*) ₹180

83. Relationship between inputs and outputs, when all inputs are changed in the same proportion are called:

(*a*) Law of variable proportion (*b*) Returns to scale

(*c*) Isoquants (*d*) Iso-cost lines

84. Which of the following is not true with regard to stage of diminishing returns?

(*a*) Total product continues to decrease.

(*b*) Both marginal product and average product of the variable factor are diminishing but are positive.

(*c*) A rational producer will seek to produce within the range of this stage.

(*d*) By the end of this stage, total product reaches its maximum.

85. Which of the following factors does not lead to internal economies of scale:

(*a*) Specialisation of labour (*b*) Use of superior techniques

(*c*) Use of by-products (*d*) Supply of skilled labour

86. What will be the impact on equilibrium price and equilibrium quantity when demand decreases and supply increases?

(*a*) Both equilibrium price and equilibrium quantity falls.

(*b*) Both equilibrium price and equilibrium quantity will rise.

(*c*) Equilibrium price falls but impact on equilibrium quantity is not certain.

(*d*) Equilibrium quantity decreases but impact on equilibrium price is not certain.

87. Which phase of business cycle is also called downswing?

(*a*) Expansion (*b*) Contraction

(*c*) Trough (*d*) Depression

88. The slope of MR curve for a monopoly firm is that of the AR curve. Choose the correct answer.

(*a*) Equal to (*b*) Twice

(*c*) Three times (*d*) Half

89. In which phase of business cycle, actual demand stagnates?

(*a*) Expansion (*b*) Peak

(*c*) Contraction (*d*) Trough

90. According to Pigou, modern business activities are based on:

(*a*) Innovations

(*b*) Purely monetary phenomena

(*c*) Anticipations/expectations of business community

(*d*) Fluctuations in output and employment

91. Which of the following is not an example of leakages from income stream?

(*a*) Progressive rates of taxation (*b*) High liquidity preference

(*c*) Distributed profits of corporations (*d*) Demand for imported goods

92. In National Accounts, which of the following is considered an 'economic bad' excluded from GDP?

(*a*) Traffic Congestion (*b*) Volunteer services

(*c*) Rent from self-owned houses (*d*) Consumption of fixed capital

93. All of the following are included in government final consumption expenditure except:

(*a*) Government expenditure on defence

(*b*) Government expenditure on education

(*c*) Government expenditure on healthcare

(*d*) Government expenditure on pensions

94. An autonomous increase in imports has income effect on equilibrium

(*a*) Expansionary (*b*) Contractionary

(*c*) Balanced (*d*) No

95. Which of the following is not listed as a common objective of fiscal policy?

(*a*) Equitable distribution of income and wealth

(*b*) Maintenance of price stability

(*c*) Promotion of exports and imports

(*d*) Achievement and maintenance of full employment

96. Who is responsible for determining the inflation target for the RBI under the Monetary Policy Framework?

(*a*) RBI independently

(*b*) The Central Government in collaboration with the RBI

(*c*) The Finance Ministry

(*d*) The Monetary Policy Committee

97. Which action does the central bank perform during Open Market Operations (OMO) to introduce high-powered money into the economy?

(*a*) Purchase of government securities

(*b*) Sale of corporate bonds

(*c*) Printing additional currency

(*d*) Raising interest rates

98. The money multiplier would be larger in which of the following scenarios?

(*a*) Smaller expenditure-deposit ratio

(*b*) Higher currency-deposit ratio

(*c*) Smaller currency-expenditure ratio

(*d*) Smaller currency-deposit ratio

99. When the RBI uses persuasion to convince banks to hold government securities instead of lending to certain sectors, it is called:

(*a*) Margin requirements (*b*) Statutory Liquidity Ratio

(*c*) Market Stabilization Ratio (*d*) Moral Suasion

100. The optimal average money holding is a negative function of which of the following?

(*a*) Income (*b*) Nominal interest rate

(*c*) Transaction cost (*d*) Price level

Answer key

1. (*b*)	**2.** (*a*)	**3.** (*b*)	**4.** (*b*)	**5.** (*a*)	**6.** (*b*)	**7.** (*c*)	**8.** (*a*)	**9.** (*d*)	**10.** (*d*)
11. (*b*)	**12.** (*d*)	**13.** (*a*)	**14.** (*c*)	**15.** (*c*)	**16.** (*a*)	**17.** (*c*)	**18.** (*d*)	**19.** (*d*)	**20.** (*b*)
21. (*a*)	**22.** (*c*)	**23.** (*b*)	**24.** (*a*)	**25.** (*c*)	**26.** (*a*)	**27.** (*c*)	**28.** (*d*)	**29.** (*c*)	**30.** (*c*)
31. (*c*)	**32.** (*a*)	**33.** (*a*)	**34.** (*c*)	**35.** (*a*)	**36.** (*b*)	**37.** (*a*)	**38.** (*a*)	**39.** (*b*)	**40.** (*d*)
41. (*c*)	**42.** (*a*)	**43.** (*a*)	**44.** (*b*)	**45.** (*b*)	**46.** (*d*)	**47.** (*b*)	**48.** (*c*)	**49.** (*d*)	**50.** (*c*)
51. (*b*)	**52.** (*a*)	**53.** (*d*)	**54.** (*b*)	**55.** (*a*)	**56.** (*a*)	**57.** (*b*)	**58.** (*d*)	**59.** (*c*)	**60.** (*d*)
61. (*d*)	**62.** (*b*)	**63.** (*c*)	**64.** (*d*)	**65.** (*c*)	**66.** (*d*)	**67.** (*d*)	**68.** (*a*)	**69.** (*b*)	**70.** (*d*)
71. (*c*)	**72.** (*a*)	**73.** (*c*)	**74.** (*b*)	**75.** (*c*)	**76.** (*a*)	**77.** (*c*)	**78.** (*c*)	**79.** (*d*)	**80.** (*c*)
81. (*d*)	**82.** (*a*)	**83.** (*d*)	**84.** (*a*)	**85.** (*d*)	**86.** (*b*)	**87.** (*b*)	**88.** (*b*)	**89.** (*b*)	**90.** (*c*)
91. (*c*)	**92.** (*a*)	**93.** (*d*)	**94.** (*b*)	**95.** (*c*)	**96.** (*b*)	**97.** (*a*)	**98.** (*d*)	**99.** (*d*)	**100.** (*b*)