



CA (FOUNDATION)

QA

CHAPTER ~~Ratio~~ Ratio and Proportion

CHAPTER-WISE TEST - 1

MARKS- 30

TEST PAPER

DURATION- 50 MINUTES

INSTRUCTIONS:

1. All the questions are compulsory.
2. Properly mention Test no. on First Page and Page no. on every answersheet.
3. Working Notes are compulsory wherever required in support of your solution.
4. Do not copy any solution from material.
5. Attempt as much as you know to fairly judge your performance.
6. Please upload your Answer Sheet Horizontally.
7. Copy once get evaluated by Evaluator cannot be re-uploaded by the student.
8. Always Check correct Test No. of your subject while uploading answer sheet.
9. Handwriting should be clean

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1. The ratio Compounded of 4 : 5 and sub - duplicate of "a" : 9 is 8 : 15. Then Value of "a" is :

- (a) 2
- (b) 3
- (c) 4
- (d) 5

2. If $2^x \times 3^y \times 5^z = 360$ Then what is the value of x,y,z ?

- (a) 3, 2, 1
- (b) 1, 2, 3
- (c) 2, 3, 1
- (d) 1, 3, 2

3. The Value of $\log \frac{a^n}{b^n} + \log \frac{b^n}{c^n} + \log \frac{c^n}{a^n}$ is

- (a) 0
- (b) 1
- (c) -1
- (d) None

4. If $\sqrt[3]{a} + \sqrt[3]{b} + \sqrt[3]{c} = 0 = 0$, then the value of $\left(\frac{a+b+c}{3}\right)^3$

- (a) abc
- (b) 9abc
- (c) $\frac{1}{abc}$
- (d) $\frac{1}{9abc}$

5. The ratio of two quantities is 6 : 5. If the consequent of its inverse ratio is 12, then the antecedent is

- (a) 12
- (b) $\sqrt{10}$
- (c) 10
- (d) none of these

6. Find three numbers in the ratio 1 : 2 : 3, so that the sum of their squares is equal to 504

- (a) 6, 12, 18
- (b) 3, 6, 9
- (c) 4, 8, 12
- (d) 5, 10, 15

7 If 10% of $x = 20\%$ of y , then $x : y$ is equal to

- (a) 1 : 2
- (b) 2 : 1
- (c) 5 : 1
- (d) 10 : 1

8. The value of $\log \frac{27}{\sqrt{3}}$

- (a) 6
- (b) 5
- (c) 2
- (d) None

9. The mean proportional between $12x^2$ and $27y^2$ is

- (a) $18xy$
- (b) $81xy$
- (c) $8xy$
- (d) none of these

10. $\log 144$ is equal to :

- (a) $2 \log 4 + 2 \log 2$
- (b) $4 \log 2 + 2 \log 3$
- (c) $3 \log 2 + 4 \log 3$
- (d) $3 \log 2 - 4 \log 3$

11. What must be added to each term of the ratio 49 : 68, so that it become 3 : 4 ?

- (a) 3
- (b) 5
- (c) 8
- (d) 9

12. If $3^{4x-2} = 729$, then the value of x is :

- (a) 1
- (b) 1.5
- (c) 2
- (d) 2.5

13. If $\frac{1}{2} \log a = \frac{1}{3} \log b = \frac{1}{5} \log c$ the value of $a^4 - bc$ is

- (a) 0
- (b) 1
- (c) -1
- (d) None

14. The number which when subtracted from each of the terms of the ratio 19 : 31 reduces it to 1 : 4 is

- (a) 15
- (b) 5
- (c) 1
- (d) none of these

15. The number $\log_2 7$ is

- (a) an integer
- (b) a rational number
- (c) an irrational number
- (d) a prime number

16. Fourth proportional to x , $2x$, $(x + 1)$ is

- (a) $(x+2)$
- (b) $(x-2)$
- (c) $(2x+2)$
- (d) $(2x-2)$

17. For what value of x , the equation $(\log_{\sqrt{x}} - 2)^2 = \log_x 2$ is true?

- (a) 16
- (b) 32
- (c) 8
- (d) 4

18. $16^{\log_4 5}$

- (a) 5
- (b) 16
- (c) 25
- (d) None

19. The mean proportional between 24 and 54 is:

- (a) 33
- (b) 34
- (c) 35
- (d) 36

20. 12, 16, x, 20 are in proportion. Find x.

- (a) 25
- (b) 14
- (c) 15
- (d) none of these

21. Two numbers are in the ratio 2 : 3 and the difference of their squares is 320. The numbers are :

- (a) 12,18
- (b) 16,24
- (c) 14,21
- (d) None.

22. If $p : q$ is the sub-duplicate ratio of $p - x^2 : q - x^2$, then x^2 is :

- (a) $\frac{p}{p+q}$
- (b) $\frac{q}{p+q}$
- (c) $\frac{qp}{p-q}$
- (d) None.

23. An alloy is to contain copper and zinc in the ratio 9 : 4. The zinc required to melt with 24 kg of copper is :

- (a) $10\frac{2}{3}$ kg
- (b) $10\frac{1}{3}$ kg
- (c) $9\frac{2}{3}$ kg
- (d) 9kg

24. $7 \log \left(\frac{16}{15}\right) + 5 \log \left(\frac{25}{24}\right) + 3 \log \left(\frac{81}{80}\right)$ is equal to :

- (a) 0
- (b) 1
- (c) $\log 2$
- (d) $\log 3$

25. A box contains Rs. 56 in the form of coins of one rupee, 50 paise and 25 paise. The number of 50 paise coin is double the number of 25 paise coins and four times the numbers of one rupee coins. The numbers of 50 paise coins in the box is :

- (a) 64
- (b) 32
- (c) 16
- (d) 14

26. Value of $(a^{1/8} + a^{-1/8})(a^{1/8} - a^{-1/8})(a^{1/4} + a^{-1/4})(a^{1/2} + a^{-1/2})$ is :

- (a) $a + \frac{1}{a}$
- (b) $a - \frac{1}{a}$
- (c) $a^2 + \frac{1}{a^2}$
- (d) $a^2 - \frac{1}{a^2}$

27. Eight people are planning to share equally the cost of a rental car. If one person withdraws from the arrangement and the others share equally entire cost of the car, then the share of each of the remaining persons increased by:

- (a) $1/9$
- (b) $1/8$
- (c) $1/7$
- (d) $7/8$

28. A bag contains Rs. 187 in the form of 1 rupee, 50 paise and 10 paise coins in the ratio 3:4:5. Find the number of each type of coins:

- (a) 102,136,170
- (b) 136,102,170
- (c) 170, 102, 136
- (d) None.

29. If $\log (2a - 3b) = \log a - \log b$, then $a =$:

(a) $\frac{3b^2}{2b-1}$

(b) $\frac{3b}{2b-1}$

(c) $\frac{b^2}{2b+1}$

(d) $\frac{3b^2}{2b+1}$

30. Ratio of earnings of A and B is 4 : 7. If the earnings of A increase by 50% and those of B decrease by 25%, the new ratio of their earning becomes 8 : 7. What is A's earning ?

(a) Rs. 21,000

(b) Rs. 26,000

(c) Rs. 28,000

(d) Data inadequate.

