Ratio and Proportion (Part-1)

1. If a:b = 2:3 and b:c = 4:5, Find a:b:c:=?
    (a) 9:10:16   **(b) 8:12:15**   **(c) 10:11:14**   **(d) 6:7:12**

2. If a:b=$\frac{4}{5}$ and b:c=$\frac{5}{2}$, Find a:b:c:=?
    (a) 4:25:2   **(b) 5:10:12**   **(c) 4:5:2**   **(d) 3:4:6**

3. If a:b = 3:4, b:c = 4:5 and c:d = 2:5, Find a:b:c:d = ?
    (a) 6:8:15:20   **(b) 8:15:10:16**   **(c) 5:7:12:25**   **(d) 6:8:10:25**

4. If a:b = 7:3, b:c = 2:4 and c:d = 2:5, Find a:d = ?
    (a) 7:15   **(b) 6:13**   **(c) 8:15**   **(d) 15:7**

5. If a:b = $\frac{1}{2}$:$\frac{1}{3}$ and b:c = $\frac{1}{8}$:$\frac{1}{5}$, then a:c = ?
    (a) 15:16   **(b) 15:17**   **(c) 16:15**   **(d) 12:17**

6. $\frac{3a+5b}{3a-5b} = 5$, then a:b=?
    (a) 2:5   **(b) 5:7**   **(c) 6:7**   **(d) 5:2**

7. Find the sub-duplicate ratio of 576 : 289 ?
    (a) 22:19   **(b) 24:17**   **(c) 17:24**   **(d) 24:23**

8. If a:b = c:d = e:f = 1:2 then $\frac{(3a+5c+7e)}{(3b+5d+7f)}$ = ?
    (a) 2:3   **(b) 4:3**   **(c) 1:2**   **(d) 2:1**

9. What is the compound ratio of the inverse ratio of x:yz, y:zx, z:xy ?
    (a) xyz:1   **(b) xy:z**   **(c) 1:xyz**   **(d) x:yz**

10. If A = 75% of B and B = 60% of C, then find A:C = ?
    (a) 20:9   **(b) 9:20**   **(c) 19:20**   **(d) 20:19**

11. The ratio of two numbers is 10:7 and their difference is 105. The sum of these numbers is:
    (a) 595   **(b) 600**   **(c) 580**   **(d) 590**

12. Rs.5600 is to be divided among A,B,C and D in such a way the ratio of share of A:B is 1:2, B:C is 3:1, C:D is 2:3. Find the share of (A+B).
    (a) 4000   **(b) 3800**   **(c) 4200**   **(d) 3600**

13. The average age of three girls is 20 years and their ages are in the proportion 3:4:5. The age of the eldest is
    (a) 18   **(b) 25**   **(c) 20**   **(d) 30**

14. If 32 students in a class are females and the ratio of female to male students is 16:9, then what percentage of the class is female?
    (a) 64%   **(b) 32%**   **(c) 50%**   **(d) 45%**

15. If (a+b) : (b+c) : (c+a) = 6:7:9 and a+b+c = 33 then c = ?
    (a) 15   **(b) 24**   **(c) 18**   **(d) 16**

16. If (a+b) : (b+c) : (c+a) = 3:7:8 and a+b+c = 108 then find the difference between a and c ?

(a) 32	(b) 48	(c) 52	(d) 45

17. If (P-a) : (P-b) : (P-c) = 11:12:13 and P = $\frac{a+b+c}{2}$, then a:b:c = ?

    (a) 25:24:23   (b) 24:21:23   (c) 17:23:24   (d) 20:21:23

18. If $\frac{a}{b} = \frac{c}{d} = 5$, then $\frac{(3a+4c)}{(3b+4d)} = ?$

    (a) 8   (b) 10   (c) 5   (d) 15

19. At present, the ratio of ages of A and B is 6:5 and 15 years from now, the ratio will change to 9:8. A's present age is:

    (a) 25   (b) 30   (c) 28   (d) 32

20. The ratio of boys and girls in a school is 3:2. When 6 more girls join, this ratio becomes 6:5. How many boys are there in the school?

    (a) 36   (b) 32   (c) 30   (d) 24

21. What number has to be added to each term of 3:5 to make the ratio 5:6 ?

    (a) 6   (b) 8   (c) 9   (d) 7

22. Two numbers are in the ratio $1\frac{1}{2} : 2\frac{2}{3}$, when each one of these is increased by 15, their ratio becomes $1\frac{2}{3} : 2\frac{1}{2}$, the larger number is:

    (a) 56   (b) 48   (c) 27   (d) 35

23. Income of A & B are in the ratio of 3:2 and their expenditure are in the ratio of 5:3, If each saves Rs.100, then A's income?

    (a) 800   (b) 650   (c) 700   (d) 600

24. A mixture of Milk and Water is 5:1, adding 5 litres of Water, the ratio becomes 5:2, the Milk is in original mixture?

    (a) 25   (b) 20   (c) 30   (d) 15

25. If a : (b+c) = 1:2 and c : (a+b) = 7:11 , then find b : (a+c) = ?

    (a) 13:5   (b) 6:17   (c) 5:13   (d) 7:13

26. If a : (b+c) = 2:3 and b : (c+a) = 4:5, then find c : (a+b) = ?

    (a) 20:37   (b) 27:32   (c) 38:7   (d) 7:38

27. If 20% of (P + Q) = 50% of (P - Q), then find P : Q = ?

    (a) 3:7   (b) 5:7   (c) 7:3   (d) 7:12

28. If A of 30% = B of 0.75 = C of $\frac{1}{4}$ the A:B:C = ?

    (a) 2:3:4   (b) 4:7:3   (c) 2:5:7   (d) 5:2:6

29. Two numbers are in the ratio of 2:3. If 2 is subtracted from the first and 2 is added to the second. The ratio becomes 1:2. The sum of the numbers is:

    (a) 30   (b) 35   (c) 32   (d) 25

30. The students in three classes are in the ratio 2:3:5. If 20 students are increased in each class, the ratio changes to 4:5:7. Originally the total number of students was:

    (a) 150   (b) 120   (c) 80   (d) 100