

*APTITUDE MASTERY SERIES*

**MODULE 2 – RATIO, PROPORTION AND PARTNERSHIP**

- King Bahubali had ordered the distribution of apples according to the following plan: For every 20 apples the elephant gets, the zebra should get 13 apples and the deer should get 8 apples. Now his servant Kattappa is in a fix. Can you help him by telling how much should he give to the elephant if there were 820 apples in total?  
(a) 140      (b) 160      (c) 200      (d) 400
- Dheeraj went to a cool corner. He gave the shopkeeper a Rs. 10 note and asked for a coke costing Rs.5. The shopkeeper returned the change to him in the denominations of Re.1, 50 paise and 25 paise. What could be the ratio of number of coins of Re.1, 50 paise and 25 paise respectively?  
(a) 2 : 3 : 1      (b) 1 : 7 : 2  
(c) 6 : 1 : 3      (d) 2 : 1 : 2
- Four numbers are in proportion. The sum of the squares of the four numbers is 50 and the sum of the means is 5. The ratio of the first two terms is 1 : 3. What is the average of the four numbers?  
(a) 2      (b) 5      (c) 3      (d) 6
- The incomes of Ajay, Balu and Chandru are in the ratio of 12 : 9 : 7 and their expenditures are in the ratio 15 : 9 : 8. If Ajay saves 25% of his income, what is the ratio of the savings of Ajay, Balu and Chandru?  
(a) 15 : 18 : 11      (b) 16 : 19 : 12  
(c) 14 : 17 : 10      (d) 17 : 20 : 13
- A cat takes 7 steps for every 5 steps of a dog, but 5 steps of a dog are equal to 6 steps of cat. What is the ratio of speed of the cat to that of dog?  
(a) 6 : 5      (b) 5 : 6  
(c) 6 : 7      (d) 7 : 6
- The value of a diamond is directly proportional to the square of its weight. A diamond unfortunately breaks into three pieces with weights in the ratio of 3 : 4 : 5 resulting in a loss of Rs. 9.4 lakhs. What is the actual value of the diamond?  
(a) 28.8 lakh      (b) 13.5 lakh  
(c) 14.4 lakh      (d) 18.8 lakh
- In a zoo, there are rabbits and pigeons. If heads are counted, there are 340 heads and if legs are counted there are 1060 legs. How many pigeons are there?  
(a) 120      (b) 150      (c) 180      (d) 170
- Weight of a sumo jointly varies as his height and his age. When height is 1.2 m and age is 20 years his weight is 48 kg. Find the weight of the sumo when his height is 1.5 m and age is 30 years:  
(a) 60 kg      (b) 72 kg      (c) 90 kg      (d) 58 kg
- Rs. 171 is divided among four friends in the ratio of  $\frac{1}{3} : \frac{1}{4} : \frac{1}{5} : \frac{1}{6}$ . What is the amount of the person who got the greatest share?  
(a) 14      (b) 40      (c) 36      (d) 60
- The ages of Abhinav, Stephen, Vamsi and Kunal are in arithmetic progression, but not in order. The ratio of ages of Abhinav and Stephen is 6 : 5 and Vamsi to Kunal is 7 : 8. Two years later the age of Stephen and Kunal will be 2 : 3. Find the ratio of ages of Abinav and Vamsi?  
(a) 7 : 6      (b) 5 : 8      (c) 6 : 7      (d) 8 : 9
- Sanjay and Varun entered into a partnership just 5 months ago. The ratio of profit claimed by Sanjay and Varun is 6 : 17. If Varun had just started his business 12 months ago with Rs. 1275, what is the amount contributed by Sanjay?  
(a) Rs. 980      (b) Rs. 1080  
(c) Rs. 1200      (d) Rs. 998

12. Apeksha purchased one dozen bangles. One day she slipped on the floor and fell down. What cannot be the ratio of broken to unbroken bangles:  
 (a) 1 : 2                      (b) 1 : 3  
 (c) 2 : 3                      (d) 1 : 5
13. The number of apples in three baskets are in the ratio of 3 : 4 : 5. In which ratio the number of apples in first two baskets must be increased so that the new ratio becomes 5 : 4 : 3?  
 (a) 2: 1                      (b) 1 : 3  
 (c) 3 : 4                      (d) 2 : 3
14. Distance covered by a train is directly proportional to the time taken and it also varies directly as the square root of fuel used and varies inversely as the number of wagons attached to it. A train covers 192 km journey in 20 hours when there are 10 wagons attached to it and total fuel consumption was 256 litres of diesel. Find the consumption of fuel per km when a train goes 200 km in 25 hours with 15 wagons attached to it:  
 (a) 1.5 l/km                      (b) 2 l/km  
 (c) 2.8 l/km                      (d) 20 l/km
15. Rs. 3650 is divided among 4 engineers, 3 MBAs and 5 CAs such that 3 CAs get as much as 2 MBAs and 3 Engineers as much as 2 CAs. Find the share of an MBA?  
 (a) 300                      (b) 350  
 (c) 475                      (d) 450
18. Akshay started a business by investing Rs. 36000. After 4 months Rakesh joined him with some investment. At the end of the year, the total profit was divided between them in the ratio of 9 : 7. How much capital was invested by Rakesh in the business?  
 (a) 44000                      (b) 42000  
 (c) 38000                      (d) 36000
19. The ratio of work efficiency of A and B is 5 : 3 and the ratio of efficiency of B and C is 5 : 8. Who is most efficient?  
 (a) A                      (b) B  
 (c) C                      (d) Can't be determined
20. Devika had only Rs. 16 in her wallet consisting of 10 paise, 20 paise and Re. 1 coins. The ratio of number of coins of 10 paise and 20 paise is 6 : 1. The minimum number of Re. 1 coins is:  
 (a) 5                      (b) 12                      (c) 4                      (d) 8

## HOME WORK

16. A camel pursues an elephant and takes 5 leaps for every 7 leaps of the elephant, but 5 leaps of elephant are equal to 3 leaps of camel. What is the ratio of speeds of camel and elephant?  
 (a) 24: 22                      (b) 25 : 21  
 (c) 23 : 19                      (d) 22 : 21
17. A varies directly as B and inversely as C. A is 12 when B is 6 and C is 2. What is the value of A when B is 12 and C is 3?  
 (a) 16                      (b) 17  
 (c) 18                      (d) 19