

# Averages & Mixtures

## Practice Exercise

- 1) **Average of first eight multiples of 11 is:**  
a) 48                      b) 55                      c) 66                      d) 44
- 2) **What is the average of multiples of 7, which lies between 20 and 85?**  
a) 48                      b) 49                      c) 52                      d) 52.5
- 3) **If the average of five consecutive numbers is 53, find the largest number**  
a) 57                      b) 54                      c) 55                      d) 60
- 4) **The average salary of 10 workers in a factory is Rs.5000. If the salary of the supervisor is included, then the average becomes Rs.5200, find the salary of the supervisor working in the factory?**  
a) Rs.7,200                      b) Rs.9,500                      c) Rs.8,500                      d) Rs.8,000
- 5) **The average age of 17 players is 14 years. If the age of their coach is included, the average age of the group becomes 15 years. How old is the coach?**  
a) 31 years                      b) 32 years                      c) 38 years                      d) 41 years
- 6) **Average weight of 20 players in a football academy is increased by 1.5 kgs when one player in the group, whose weight is 50 kgs is replaced with new player. Find the weight of the new player?**  
a) 80 years                      b) 20 years                      c) 40 years                      d) 70 years
- 7) **The average age of Mr. and Mrs. Sharma and their 4 children is 20 years. If his age is excluded, the average age of remaining members in the family would be 17 years. How old is Mr. Sharma?**  
a) 26                      b) 29                      c) 30                      d) 35
- 8) **The average of 7 consecutive numbers starting with  $m$  is  $K$ , then what is the average of the 3 consecutive numbers starting with  $m + 3$ ?**  
a)  $K + 3$                       b)  $K - 1$                       c)  $K - 2$                       d)  $K + 1$
- 9) **Average age of family of 5 members is 20 years. If age of younger member be 10 years, then what was the average of family at the time of birth of youngest member? [TCS]**  
a) 16 years                      b) 15 years                      c) 12.5 years                      d) 13.5 years

- 10) The average age of 36 students in a group is 14 years. When teacher's age is included to it, the average increases by one. Find out the teacher's age in years?
- a) 52 years                      b) 51 years                      c) 42 years                      d) 41 years
- 11) A student's mark was wrongly entered as 83 instead of 63. Due to that the average marks for the class got increased by 0.5 marks. What is the number of students in the class?
- a) 40                              b) 20                              c) 30                              d) 45
- 12) 4 years ago, the average age of 4 members of a family was 19 years. A baby having been born, the average age of the family is the same today. Find the age of the baby?
- a) 5 years                      b) 4 years                      c) 3 years                      d) 2 years
- 13) The average of runs of a cricket player of 10 innings was 32. How many runs must be made in his next innings so as to increase his average of runs by 4?
- a) 76 runs                      b) 74 runs                      c) 70 runs                      d) 78 runs
- 14) The average weekly salary of 12 workers and 3 managers in a factory was Rs.600. A manager whose salary was Rs.720 was replaced with a new manager, then the average salary of the team fell to Rs.580. What is the salary of the new manager?
- a) Rs.570                      b) Rs.690                      c) Rs.640                      d) Rs.420
- 15) The average salary of all the workers in a workshop is Rs.8,000. The average salary of 7 technicians is Rs.12,000 and the average salary of the rest is Rs.6,000. The total number of workers in the workshop is
- a) 20                              b) 21                              c) 22                              d) 23
- 16) The average weekly salary of 10 cleaners and 2 managers in a factory was Rs.5000. When one of the managers whose salary was Rs.5500, was replaced with a new manager, then the average salary of the team went up to Rs.5300. What is the salary of the new manager?
- a) Rs.9000                      b) Rs.9600                      c) Rs.9100                      d) Rs.9200
- 17) A shopkeeper mixes two varieties of pulses to get a mixture of pulses. He uses 1 kg and 4 kg of pulses costing Rs.10 and Rs.20 per kg respectively. What is the cost of resultant mixture (in rupees Per kg)?
- a) Rs.11                              b) Rs.15                              c) Rs.17                              d) Rs.18
- 18) What is the ratio in which rice at Rs.7.2 per kg is mixed with rice at Rs.5.7 per kg to produce a mixture worth Rs.6.3 per kg?
- a) 1 : 3                              b) 2 : 3                              c) 3 : 4                              d) 4 : 5

- 19) A trader mixes 26 kg of rice at Rs.20 per kg with 30 kg of rice of another variety of at Rs.36 per kg and sells the mixture at Rs.30 per kg. His profit percentage is:  
a) No profit, no loss      b) 5%      c) 8%      d) 10%
- 20) In What ratio should two alloys with zinc and tin in the ratio 3 : 5 and 5 : 3 respectively, be mixed to get a new alloy containing zinc and tin in the ratio 1 : 1?  
a) 1 : 1      b) 5 : 4      c) 2 : 3      d) 1 : 4
- 21) A container contains 40 litres of milk. From this container, 4 litres of milk were taken out and replaced by water. This process was repeated two more times. How much milk (in litres) is now contains by the container?  
a) 26.34      b) 27.36      c) 28      d) 29.16
- 22) A vessel is filled with liquid, 3 parts of which are water and 5 parts are syrup. How much of the mixture must be drawn of and replaced with water so that the mixture is half water and half syrup?  
a)  $\frac{1}{3}$       b)  $\frac{1}{4}$       c)  $\frac{1}{5}$       d)  $\frac{1}{7}$
- 23) In a zoo, there are cows and hens. If the heads are counted there are 200 and if legs are counted there are 440. How many cows are there in the zoo?  
a) 180      b) 20      c) 150      d) 40
- 24) In what ratio should pulses at the rate of Rs.44 per kg, be mixed with pulses at the rate Rs.52 per kg so that if the mixture is sold at the rate of Rs.60 per kg, 20% profit is made?  
[Infosys]  
a) 1 : 2      b) 3 : 4      c) 2 : 3      d) 1 : 3
- 25) The milk and water in two vessels A and B are in the ratio of 2 : 3 and 4 : 1 respectively. In what ratio, the liquids in both the vessels be mixed to obtain a new mixture in vessel C containing half milk and half water?  
a) 3 : 1      b) 1 : 3      c) 3 : 2      d) 1 : 2

### Check the Answers

1	A	6	A	11	A	16	C	21	D
2	D	7	D	12	C	17	D	22	C
3	C	8	D	13	A	18	B	23	B
4	A	9	C	14	D	19	B	24	D
5	B	10	B	15	B	20	A	25	A