*APTITUDE MASTERY SERIES*

# MODULE 3 – AVERAGE

1. The average of 7 consecutive odd numbers if the smallest of those numbers is denoted by $k$ is:
   (a) $k + 4$    (b) $k + 7$    (c) $k + 6$    (d) $7k$

2. The average income of A, B and C is Rs.12000 per month and the average income of B, C and D is Rs.15000 per month. If the average salary of D be twice that of A, then the average salary of B and C is (in Rs.):
   (a) 8000    (b) 13500    (c) 18000    (d) 9000

3. The average weight of a class of 20 students is 45 kgs. When a new student whose weight is 40 kgs replaces an old student, the average weight of the whole class decreases by 1 kg. The weight of the replaced student is:
   (a) 55 kgs    (b) 50 kgs    (c) 60 kgs    (d) 62 kgs

4. There were five sections in the MAT paper. The average score of Pooja in the first 3 sections was 83 and the average in the last 3 sections was 97. If her average for the entire paper was 92, then her score in the third section was:
   (a) 85    (b) 92    (c) 88    (d) 80

5. There are twice the number of two wheelers as there are three wheelers and the number of four wheelers are equal to the number of two wheelers. The average number of wheels per vehicle is:
   (a) 2    (b) 3    (c) 4    (d) 5

6. Once Ajay went to the office of ROCKLINE COURIER with 4 different envelopes. The clerk in the office measured the weights in all possible pairs. The weights obtained are 59gm, 61gm, 62gm, 63gm, 64gm and 66gm. The weight of the heaviest envelope is:
   (a) 35gm      (b) 36gm
   (c) 34gm      (d) can't be determined

7. In a particular week the average number of people who visited Golkonda is 40. If we exclude the holidays, then the average increases by 16. If we also exclude the day on which maximum number of people - 112 visited Golkonda, then the average becomes 42. The number of holidays in the week is:
   (a) 1    (b) 2    (c) 3    (d) 4

8. The average age of a group of persons going for a movie is 20 years. 10 new persons with an average age of 10 years join the group on the spot due to which the average of the group becomes 18 years. Find the number of persons initially going for the movie?
   (a) 40    (b) 20    (c) 50    (d) 30

9. The average age of 10 men increases by 3 years when one of them, whose age is 54 years is replaced by a woman. What is the age of the woman?
   (a) 68 years      (b) 82 years
   (c) 72 years      (d) 84 years

10. Satyajit earns 3/2 times in January, April, July and October than his average earning of Rs.600 per month in the rest of the months. As a result, his savings in January, April, July and October goes to 5/4 times of Rs. 400, which is his savings per month in the rest of the months. What is his average expenditure per month?
    (a) Rs.266.66      (b) Rs.250
    (c) Rs.233.33      (d) Rs.433.33

11. A man had ten children. When their average age was 15 years, a child aged 6 years died. The average age of the remaining 9 children is:
    (a) 16 years      (b) 13 years
    (c) 17 years      (d) 15 years

12. The average temperature on Monday, Tuesday and Wednesday is 38° C. The average temperature on Tuesday, Wednesday and Thursday is 43° C. If the average temperature on Monday and Thursday is 18.5° C. The average temperature on Monday is:

    (a) 11°C     (b) 21°C     (c) 35°C     (d) 27°C

13. The average weight of all the 11 players of Indian Cricket Team is 50 kg. If the average of first six lightest players is 49 kg and that of the six heaviest players is 52 kg, then the average weight of the player who lies in the sixth position when all the 11 players are arranged in the order of increasing or decreasing weights is:

    (a) 51 kg            (b) 52 kg
    (c) 56 kg            (d) none of these

14. A number is such that when it is multiplied by 8, it gives another number which is as much more than 270 as the original number itself is less than 270. The average of the original number and the resultant number is:

    (a) 33.75            (b) 190
    (c) Can't be determined     (d) 270

15. A travel agency has three types of vehicles viz. 4 seater autorickshaw, 10 seater maxi cab and 20 seater minibus. The rate for each passenger (irrespective of his age or weight or seniority) for the autorickshaw is Rs. 12, for the maxicab is Rs.15 and for the minibus is Rs.8 for one round. The average occupancy of the seats is 100%, 80% and 75% respectively. If the travel agency has only one vehicle of each kind, then the average earning for one round is:

    (a) Rs.96     (b) Rs.90     (c) Rs.86     (d) Rs.70

## HOME WORK

16. There are 6 consecutive odd numbers in increasing order. The difference between the average of the squares of the first 4 numbers and the last four numbers is 64. If the sum of the squares of the first and the last element (i.e., odd numbers) is 178, then the average of all the six numbers is:

    (a) 7     (b) 8     (c) 9     (d) 10

17. The average age of 60 students of IIM Bangalore of the 2005 batch is 23 years. What will be the new average if we include the 40 faculty members whose average age is 35 years?
    (a) 27 years            (b) 26.5 years
    (c) 27.8 years         (d) 28 years

18. The average weight of 3 boys A, B and C is 74 kg. Another boy D joins the group and the average now becomes 70 kg. If another boy E, whose weight is 3 kg more than that of D, replaces A then the average weight of B, C, D and E becomes 75 kg. The weight of A is:
    (a) 40 kg            (b) 42 kg
    (c) 49 kg            (d) 41 kg

19. The average presence of students in a class on Monday, Tuesday and Wednesday is 30 and on Wednesday, Thursday, Friday and Saturday is 28. Find the number of students who attended the class on Wednesday if the average number of students on all the six days is 27.
    (a) 24     (b) 25     (c) 20     (d) 40

20. The average salary of employees in BPL is Rs.20000, the average salary of managers being Rs.40000 and the management trainees being Rs.5000. The total number of workers could be:
    (a) 350            (b) 300
    (c) 100            (d) 500