Aptitude Average Questions and Answers Pdf

1. The body weight of seven students of a class is recorded as 54 kg, 78 kg, 43 kg, 82 kg, 67 kg, 42 kg and 75 kg. What is the average body weight of all the seven students?
   a. 63 kg
   b. 69 kg
   c. 71 kg
   d. 73 kg -→ A

   Ans:

   Average body weight

   $$= \left(\frac{54+78+43+82+67+42+75}{7}\right)\text{kg}$$

   $$= \left(\frac{441}{7}\right)\text{kg} = 63\text{ kg}.$$

2. Find the average of the following sets of sores 385, 441, 876, 221, 536, 46, 291, 428
   a. 221
   b. 403
   c. 428
   d. 536 -→ B

   Ans:

   $$\text{Average} = \left(\frac{385+441+876+221+536+46+291+428}{8}\right)$$

   $$= \left(\frac{3224}{8}\right) = 403.$$

3. The monthly incomes of five persons are Rs.1132, Rs.1140, Rs.1144, Rs.1136 and Rs.1148 respectively. What is their arithmetic mean?
   a. Rs. 1100
   b. Rs. 1120
   c. Rs. 1132
   d. Rs. 1140 -→D

   Ans:

   $$\text{Arithmetic mean} = ₹\left(\frac{1132+1140+1144+1136+1148}{5}\right)$$

   $$= ₹\left(\frac{5700}{5}\right) = ₹\,1140.$$

4. Among five people with monthly income in Rs.15000, Rs.26000, Rs.16000, Rs.19000 and Rs.50000, how many will have income less than the mean income of five people?
   a. 1
   b. 2
   c. 3
   d. 4 -→ C

   Ans:

$$\text{Mean income} = ₹\left(\frac{15000+26000+16000+19000+50000}{5}\right)$$

$$= ₹\left(\frac{126000}{5}\right) = ₹\,25200.$$

Clearly, three people have monthly incomes below the mean income.

5. The total marks obtained by a student in Physics, Chemistry and Mathematics together is 120 more than the marks obtained by him in Physics, and Mathematics together?

a. 40
b. 60
c. 120
d. Cannot be determined -→ B

$$P + C + M = C + 120 \Rightarrow P + M = 120.$$

$$\therefore \text{ Required average } = \frac{P+M}{2} = \frac{120}{2} = 60.$$

6. The average of the first 100 positive integers is
a. 49.5
b. 50.5
c. 51
d. 100 -→ B
Ans:

$$\text{Required average} = \left(\frac{1+2+3+\cdots+100}{100}\right)$$

$$= \frac{1}{100} \times \frac{100 \times 101}{2} = 50.5.$$

7. The average of 4 positive integers is 59. The highest integer is 83 and the lowest integer is 29. The difference between the remaining two integers is 28. Which of the following integers is highest of the remaining two integers?

a. 39

b. 48

c. 76

d. Cannot be determined -→

Ans: C

Sum of four integers = 59 × 4 = 236.

Let the required integers be x and $x - 28$.

Then, $x + (x - 28) = 236 - (83 + 29) = 124$

$\Rightarrow \quad 2x = 152 \Rightarrow x = 76.$

Hence, required integer = 76.

8. The average expenditure of a man for the first five months of a year is Rs.5000 and for the next seven months it is Rs.5400. He saves Rs.2300 during the year. His average monthly income is

a. Rs.5425

b. Rs.5445

c. Rs.5500

d. Rs.5600 -→ A

Ans:

Total yearly income = ₹ (5000 × 5 + 5400 × 7 + 2300)

= ₹ (25000 + 37800 + 2300) = ₹ 65100.

∴ Average monthly income = ₹ $\left(\frac{65100}{12}\right)$ = ₹ 5425.

9. If the arithmetic mean of seventy five numbers is calculated, it is 35. If each number is increased by 5, then mean of new numbers is

a. 30

b. 40

c. 70

d. 90 -→ B

Ans:

A.M. of 75 numbers = 35. Sum of 75 numbers

$= (75 \times 35) = 2625.$

Total increase $= (75 \times 5) = 375$. Increased sum

$= (2625 + 375) = 3000.$

Increased average $= \frac{3000}{75} = 40.$

10. The mean of 25 observations was found to be 78.4. But later on it was found that 96 was misread as 69. The correct mean is

a. 76.54

b. 78.4

c. 79.48

d. 81.32 -→ C

Ans:

Correct sum $= (78.4 \times 25 + 96 - 69) = 1987.$

$\therefore$ Correct mean $= \frac{1987}{25} = 79.48.$

11. The average weight of 8 men is increased by 1.5 kg when one of the men, who weight 65 kg is replaced by a new man. The weight of the new man is

a. 70 kg

b. 74 kg

c. 76 kg

d. 77 kg -→D

Ans:

Total weight increased $= (8 \times 1.5)$ kg $= 12$ kg.

Weight of the new man $= (65 + 12)$ kg $= 77$ kg.

12. There were 24 students in a class. One of them, who was 18 years old, left the class and his place was filled up by a new corner. If the average of the class thereby, was lowered by one month, the age of the new corner is

a. 14 years

b. 15 years

c. 16 years

d. 17 years -→C

Ans:

Total age decreased $= (24 \times 1)$ months $= 24$ months

$= 2$ years.

$\therefore$ Age of the newcomer $= (18 - 2)$ years $= 16$ years.

13. The average height of 25 boys is 1.4 m. When 5 boys leave the group, then the average height increases by 0.15 m. What is the average height of the 5 boys who leave?

a. 0.8 m

b. 0.9 m

c. 0.95 m

d. 1.05 m -→A

Ans:

Sum of heights of the 5 boys = (25 × 1.4 – 20 × 1.55) m

= 4 m.

∴ Required average = $\left(\frac{4}{5}\right)$m = 0.8 m.

14. A motorist travel to a place 150 km away at an average speed of 50 km/hr and returns at 30 km/hr. His average speed for the whole journey in km/hr is

a. 35

b. 37

c. 37.5

d. 40 →C

Ans:

Average speed = $\frac{2xy}{x+y} = \left(\frac{2 \times 50 \times 30}{50+30}\right)$ km/hr = 37.5 km/hr.

15. The average age of husband, wife and their child 3 years ago was 27 years and that of wife and the child 5 years ago was 20 years. The present age of the husband is

a. 35 years

b. 40 years

c. 50 years

d. none of these -→B

Ans:

Sum of the present ages of husband, wife and child

= (27 × 3 + 3 × 3) years = 90 years.

Sum of the present ages of wife and child

= (20 × 2 + 5 × 2) years = 50 years.

∴ Husband's present age = (90 – 50) years = 40 years.

16. After replacing an old member by a new member, it was found that the average age of five members of a club is the same as it was 3 years ago. What is the difference between the ages of the replaced and the new member?

a. 2 years

b. 4 years

c. 8 years

d. 15 years -→D

Ans:

Age decreased = (5 × 3) years = 15 years.

So, the required difference = 15 years.

17. Out of 10 teachers of a school, one teacher retires and in place of him a new teacher 25 years old joins. As a result of it average age of the teachers reduces by 3 years. Age of the retired teacher (in years) is

a. 55

b. 60

c. 58

d. 56 -→A

Ans:

Total number of teachers = 10

Age of new teacher = 25 years

Age of the retired teacher

= (25 + 3 × 10) years

= 55 years

18. Find the average of 205, 302, 108, 403 and 202

a. 450

b. 1225

c. 244

d. 1220 →C

Ans:

Sum of numbers = 205 + 302 + 108 + 403 + 202 = 1220

Required average $= \frac{1220}{5} = 244$

19. A man travels by a car to his office at 60 km/hr and returns home along the same route at 20 km/hr. Find the average speed of his whole journey.

a. 40 km/hr

b. 50 km/hr

c. 30km/hr

d. 25 km/hr -→C

Ans:

$$\text{Average speed} = \frac{20 \times 60 \times 20}{60 + 20} = \frac{2 \times 60 \times 20}{80} = \mathbf{30\ km/h}$$

20. The average of five numbers is 27. If one number is excluded, the average becomes 25. The excluded number is

a. 25

b. 27

c.. 30

d. 35 -→D

Ans:

$$\text{Total of 5 numbers} = 27 \times 5$$

$$\text{Excluded number} = 27 \times 5 - 25 \times 4 = 135 - 100 = \mathbf{35}$$