Average Questions for SBI PO Pre, IBPS PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

Average Quiz 12

Directions: Kindly study the following Questions carefully and choose the right answer:

1. In an exam of 100 marks, the average marks of a class of 40 students are 76. If the top 3 scorers of the class leave, the average score falls "down by 1. If the other two toppers except "the highest topper scored not more than 85. "then what is the minimum score the topper can score?

A. 86   B. 98   C. 95   D. 92   E. None of these

2. Average weight of three friends Amar, Visera and Daman is 70 kg. Another person Vishal joins the group and now the average is 66 kg. If another person Tahir whose weight is 6 kg more than Vishal, joins the group replacing Amar, then average weight of Visera, Daman, Vishal and Tahir becomes 75 kg. What is the weight of Amar (in kg)?

A. 18   B. 20   C. 22   D. 24   E. None of these

3. The average salary of a company increases by 100 when the salary of the manager, which is Rs. 9500, is included. If the number of employees excluding the manager is the smallest cube divisible by 16, what is the final average of the company?

A. Rs. 4000   B. Rs. 3400   C. Rs. 3700   D. Rs. 3100   E. None of these

4. An exam was conducted in a state over 222 centres. The average number of applicants per centre was found to be 1560. However, it was later realized that in one centre, the number of applicants was counted as 1857 instead of 1747. What was the correct average number of applicants per centre (upto two decimals)?

A. 1557.87   B. 1558.20   C. 1558.92   D. 1559.51   E. None of these

5. In Champions league, Rohit scored an average of 120 runs per match in the first 3 match and an average of 140 runs per match in the last four match. What is Rohit's average runs for the first match and the last two match if his average runs per match for all the five match is 122 and total number of matches are 5?

A. 100   B. 200   C. 150   D. 50   E. None of these

6. The average expenditure of a worker for 6 months was Rs. 95 and he fell into debt. In the next 4 months by reducing his monthly expenses to Rs. 70 he not only cleared off his debt but also saved Rs. 50. His monthly income is

A. Rs. 85   B. Rs. 95   C. Rs. 88   D. Rs. 90   E. None of these

7. The students of a class are divided into 3 groups depending on their performance in a test – the top, middle and bottom. The top group consists of 45% of the students, the middle group consists of 30% of the students and the rest are in the bottom group. The average marks of the bottom group are 20, those of the middle are 25 while the average marks for the entire class are 26. Find the average marks of the top group.

A. 7   B. 12   C. 22   D. 30   E. None of these

8. The average height of girls in a class is 5 ft and that of boys is 5.7 ft. If the average height of the students in class is 5.5 ft what could be the possible strength of boys and girls respectively in the class:

A. 30, 20   B. 20, 30   C. 50, 20   D. 60, 50   E. None of these

9. On the occasion of teacher's day, some number of boys and girls contributed some money. The average contribution of boys was Rs. 250 and that of girls was Rs. 100. If the average contribution per student was Rs. 160 on the whole then what percent of students are boys?

A. 60%   B. 44%   C. 40%   D. 80%   E. None of these

10. The average number of chocolates that some number of boys have is 240 and average number of chocolates that some number of girls have is 180. If each of the boys eat 10 chocolates then the average number of chocolates with all the students become 200. The total number of boys is what percentage of the total number of students?

A. 75%   B. 40%   C. 60%   D. 62.5%   E. None of these

Correct Answers:

1	2	3	4	5	6	7	8	9	10
C	D	D	D	A	D	D	C	C	B

Explanations:

1. Total score of 40 students = (40 × 76) = 3040

Total score of top 3 scorers = 3040 – (37 × 75) = 265

To minimize the score of the top scorer, we assume the other two top scorers score the maximum they can = 85 marks each.

So, the top scorer scored = 265 – 170 = 95 marks.

Hence, option C is correct.

2. Total weight of Amar, Visera and Daman = 70 × 3 = 210 kg

Again, Amar + Visera + Daman + Vishal = 66 × 4 = 264 kg   .... (i)

∴ Weight of Vishal = 264 – 210 = 54 kg

∴ Weight of Tahir = 54 + 6 = 60 kg

Now, as per the question

Visera + Daman + Vishal + Tahir = 75 × 4 = 300 kg. .... (ii)

Subtracting (i) from (ii), we get

Tahir – Amar = 60 – Amar = 300 – 264 = 36

Therefore, weight of Amar = 60 – 36 = 24 kg

Hence, option D is correct.

3. The smallest cube divisible by 16 is 64.

Lets assume the average salary before the manager's salary is included is x

After addition of Manager's salary the average increases by 100

We can write down the above information in form of an equation as:

64x + 9500 = 65 × (x + 100)

Solving for x, we get x = 3000

The final average is 3000 + 100 = Rs. 3100

Hence, option D is correct.

4.   Number of applicants that have been counted extra = 1857 − 1747 = 110

Hence, decrease in average = $\dfrac{110}{222}$ = 0.495

∴ Correct average = 1560 − 0.495 = 1559.505 = 1559.51

Hence, option D is correct.

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5.   Rohit's average score in the first 3 exams = 120
Let the scores in the 5 exams be denoted by M1, M2, M3, M4, and M5
M1 + M2 + M3 = 120 × 3 = 360   **.......(i)**
Average of last 4 match = 140

$\Rightarrow \dfrac{M2 + M3 + M4 + M5}{4}$ = 140

$\Rightarrow$ M2 + M3 + M4 + M5 = 560   **......(ii)**

Average of all the exams

$\Rightarrow \dfrac{M1 + M2 + M3 + M4 + M5}{5}$ = 122

∴   M1 + M2 + M3 + M4 + M5 = 122 × 5 = 610   **.......(iii)**
From solving above equation, we get M1 + M4 + M5 = 300

Required average runs = $\dfrac{300}{3}$ = 100

Hence correct option (A) is correct.

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6.   We know,

Average of quantities = sum of all quantities / no. of quantities

The average expenditure of a worker for 6 months was Rs. 95.

So, the total expenditure of the worker for 6 months = Rs. 95 × 6 = Rs. 570

In the next 4 months by reducing his monthly expenses to Rs. 70 he not only cleared off his debt but also saved Rs. 50. So, total expenditure in these 4 months = Rs. 70 × 4 = Rs. 280

We know,

Total income − total expenditure = total savings
⇒ Total income = total expenditure + total savings
⇒ Total income = (570 + 280) + 50 = 900
So, the total income in 10 months = Rs. 900
∴   His monthly income = Rs. (900/10) = Rs. 90
Hence, option D is correct.

7.

	Top	Middle	Bottom	Total
Number of student	45	30	25	100
Average	P	25	20	26

Let the total number of students in the class = 100. The data given in the question is shown in the table.

Let average of top group be P

(45 × P) + (30 × 25) + (20 × 25) = (100 × 26)

⇒ P = 30

Hence correct option is (D).

8. Let number of boys be B and

number of girls be G in the class

so total strength of class = B + G

If the average height of boys in class is 5.7 ft then total height of boys in class will be 5.7B

similarly If the average height of girls in class is 5 ft then total height of girls in class will be 5G

ALSO given average height of all students in class is 5.5ft then

$$\frac{7.5B + 5G}{B + G} = 5.5$$

⇒ 5.7B + 5G = 5.5B + 5.5G

⇒ 0.2B = 0.5G or 2B = 5G   ...a)

Now we have to choose B and G such that ....a) gets equal

the value at option 3 rd i.e B = 50 AND G = 20 satisfy it

Hence, option C is correct.

9. Let the number of boys = x and the number of girls = y then

250x + 100y = 160(x + y)

90x = 60y

x : y = 2 : 3

The reqd. % = $\dfrac{2 \times 100}{5}$ = 40%

Hence, option C is correct.

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10. Let the number of boys = x and the number of girls = y

The total number of chocolates the boys have = 240x

The total number of chocolates the girls have = 180y

If each of the boys eat 10 chocolates then the remaining number of chocolates, the boys will have = 240x − 10x = 230x

The sum of the all the chocolates = 200(x + y) = 230x + 180y

20y = 30x

x : y = 2 : 3

The reqd. percentage = $\dfrac{2 \times 100}{5}$ = 40%

Hence, option B is correct.