

SBI Clerk Prelims 2021 Quantitative Aptitude Practice PDF with Solution



Direction: What value should come in place of question mark (?) in following questions?

1. $18\% \text{ of } 1500 + 22 \text{ of } \frac{16}{176} = ?$

- A. 262
- B. 282
- C. 276
- D. 272
- E. 286

2. $4\frac{2}{7} + 17\frac{7}{21} + 23\frac{8}{21} = ?$

- A. 44
- B. 45
- C. 46
- D. 35
- E. 48

3. $225\% \text{ of } 96 \div 6 + 40\% \text{ of } 680 = ?$

- A. 312
- B. 318
- C. 308
- D. 328
- E. 298

Direction: What should come in place of the question mark '?' in the following number series?

4. 10, 14, 32, 80, 180, 360, ?

- A. 720
- B. 654
- C. 432
- D. 572
- E. 624

5. 5140, 5283, 5538, ?, 6512, 7295, 8318

- A. 5937
- B. 6025
- C. 6179
- D. 5897
- E. 5879

Direction: Study the given table carefully and answer the following questions. The following table represents the marks obtained by five students out of 100 in five different subjects.



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Students	Hindi	English	Maths	Science	History	Average
Aman	65	----	50	40	----	56
Biman	----	72	75	60	65	-----
Chaman	60	60	----	75	72	65.4
Daman	---	80	80	70	----	67
Esha	75	---	90	80	75	-----

6. If ratio of marks obtained by Daman in Hindi and History was 3 : 4, then what was the ratio of marks obtained by Daman in History and marks obtained by Chaman in history?

- A. 7 : 8
- B. 10 : 13
- C. 3 : 4
- D. 5 : 6
- E. None of these

7. If total marks obtained by Biman in Hindi was 80, then what was the ratio of average marks obtained by Biman and average marks obtained by Chaman?

- A. 342 : 317
- B. 352 : 327
- C. 252 : 227
- D. 302 : 307
- E. None of these

8. If the ratio of marks obtained Aman in English and marks obtained by Chaman in Maths is 5 : 4, find the marks obtained by Aman in History.

- A. 30
- B. 40
- C. 50
- D. 60
- E. 65

9. If the marks obtained by Biman in Hindi is 20 more than marks obtained by Daman in History, and ratio of marks obtained by Biman and Daman in Hindi is 16 : 9, then find the average marks obtained by Biman.

- A. 70.4
- B. 68.5
- C. 72.8
- D. 75.4
- E. None of these

10. If marks obtained by Esha in English was 10 marks more than the marks obtained by Daman in Maths, then find the average marks obtained by Esha.

- A. 82
- B. 88



- C. 90
- D. 92
- E. 108

11. If present ages of Suresh and Mahesh are in the ratio of 2 : 3 and six years ago their age was in the ratio of 1 : 3, then find the ratio of their ages 3 years from now.

- A. 11 : 15
- B. 12 : 14
- C. 13 : 15
- D. 10 : 13
- E. None of these

12. A 45 liters mixture of juice and water contains juice and water in the ratio of 3 : 2 respectively. To this mixture, 8 liters of juice and 3 liters of water is added. What will be the new ratio of juice to water in the jar?

- A. 2 : 3
- B. 5 : 3
- C. 4 : 5
- D. 6 : 3
- E. None of these

13. A man takes thrice as long to row a distance against the stream as to row the same distance in favour of stream. Find the ratio of speed of boat in still water to the speed of the stream.

- A. 3 : 2
- B. 7 : 5
- C. 6 : 5
- D. 2 : 1
- E. 11 : 9

Direction: In the following question two equations are given in variables X and Y. You have to solve these equations and determine relation between X and Y.

14. I. $3x^2 - 21x + 36 = 0$

II. $y^2 - 4y + 3 = 0$

- A. $X > Y$
- B. $X < Y$
- C. $X \leq Y$
- D. $X \geq Y$
- E. $X = Y$ or no relation can be established

Direction: In the following question two equations are given in variables X and Y. You have to solve these equations and determine the relation between X and Y.

15.



The banner features an illustration of a person sitting on the floor with a smartphone. To the right, the text reads "SBI Clerk 2021 Course (Batch 3)" in green and black. A red button with white text says "START FREE TRIAL".

I. $X = \sqrt[3]{35937}$

II. $Y^2 - 66Y + 1089 = 0$

- A. $Y > X$
- B. $X > Y$
- C. $X \leq Y$
- D. $X \geq Y$
- E. $X = Y$ or no relation can be established

ANSWERS:

1. Ans. D.

$$? = \frac{18}{100} \times 1500 + 22 \times \frac{16}{176} = 270 + 2 = 272$$

2. Ans. B.

$$\begin{aligned} ? &= 4^{\frac{2}{7}} + 17^{\frac{7}{21}} + 23^{\frac{8}{21}} \\ &= (4 + 17 + 23) + \left(\frac{2}{7} + \frac{7}{21} + \frac{8}{21}\right) \\ &= 44 + \left(\frac{6}{21} + \frac{7}{21} + \frac{8}{21}\right) = 44 + \frac{21}{21} = 45 \end{aligned}$$

3. Ans. C.

$$\begin{aligned} ? &= \frac{225}{100} \times \frac{96}{6} + \frac{40}{100} \times 680 \\ &= 36 + 272 \\ &= 308 \end{aligned}$$

4. Ans. B.

The pattern of the series is:

$$10 + 1 \times 2^2 = 14$$

$$14 + 2 \times 3^2 = 32$$

$$32 + 3 \times 4^2 = 80$$

$$80 + 4 \times 5^2 = 180$$

$$180 + 5 \times 6^2 = 360$$

$$360 + 6 \times 7^2 = \mathbf{654}$$

5. Ans. A.

The pattern of the series is:

$$5140 + 11 \times 13 = 5283$$

$$5283 + 15 \times 17 = 5538$$

$$5538 + 19 \times 21 = \mathbf{5937}$$

$$5937 + 23 \times 25 = 6512$$

$$6512 + 27 \times 29 = 7295$$

$$7295 + 31 \times 33 = 8318$$

Hence, the answer is option A.

6. Ans. D.



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Let the marks obtained by Daman in Hindi and History be $3x$ and $4x$.

$$3x + 80 + 80 + 70 + 4x = 5 \times 67$$

$$\Rightarrow 7x = 335 - 230$$

$$\Rightarrow x = 105/7 = 15$$

Marks obtained by Daman in History = $4x = 60$

Required ratio = $60 : 72 = 5 : 6$

7. Ans. B.

Average marks obtained by Biman = $80 + 72 + 75 + 60 + 65 = 70.4$

Required ratio = $70.4 : 65.4 = 704 : 654 = 352 : 327$

8. Ans. C.

Marks obtained by Chaman in Maths = $5 \times 65.4 - (60 + 60 + 75 + 72)$

$$= 327 - 267 = 60$$

Marks obtained by Aman in English = $60 \times (5/4) = 75$

Marks obtained by Aman in History = $5 \times 56 - (65 + 75 + 50 + 40)$

$$= 280 - 230 = 50$$

9. Ans. A.

Let marks obtained by Biman and Daman in Hindi be $16x$ and $9x$ respectively.

Marks obtained by Daman in history = $16x - 20$

$$9x + 80 + 80 + 70 + 16x - 20 = 5 \times 67$$

$$\Rightarrow 25x + 210 = 335$$

$$\Rightarrow 25x = 125$$

$$\Rightarrow x = 5$$

Marks obtained by Biman in Hindi = $16x = 80$

Now,

Required average = $(80 + 72 + 75 + 60 + 65)/5 = 352/5 = 70.4$

10. Ans. A.

Marks obtained by Esha in English = $80 + 10 = 90$

Required Average = $(75 + 90 + 90 + 80 + 75)/5 = 410/5 = 82$

11. Ans. A.

Let the present ages of Suresh and Mahesh be $2x$ and $3x$

According to question,

$$\frac{2x-6}{3x-6} = \frac{1}{3}$$

$$\Rightarrow 6x - 18 = 3x - 6$$

$$\Rightarrow 3x = 12$$

$$\Rightarrow x = 4$$

So, Present age of Suresh = $2x = 8$

And present age of Mahesh = $3x = 12$

Required Ratio = $(8 + 3) : (12 + 3) = 11 : 15$

12. Ans. B.

In the mixture of 45L,

Quantity of juice = $(3/5) \times 45 = 27L$

Quantity of water = $(2/5) \times 45 = 18L$

After adding 8L of juice and 3L of water

Final quantity of Juice = $27 + 8 = 35L$



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Final quantity of Water = $18 + 3 = 21L$

Required ratio = $35 : 21 = 5 : 3$

13. Ans. D.

As we know,

$\frac{\text{Distance}}{\text{Time}}$

Speed = $\frac{\text{Distance}}{\text{Time}}$

Here, ratio of speed of upstream to downstream = $1 : 3$

Let us assume the speed of upstream = x

So, the speed of the downstream = $3x$

Since, speed of boat in still water - speed of stream = x

speed of boat in still water + speed of stream = $3x$

$2 \times$ Speed of boat in still water = $3x + x$

Speed of boat in still water = $2x$

Ratio of speed of boat in still water to the speed of the stream = $2x : x$
 $= 2 : 1$

14. Ans. D.

I. $3x^2 - 21x + 36 = 0$

$\Rightarrow x^2 - 7x + 12 = 0$

$\Rightarrow x^2 - 3x - 4x + 12 = 0$

$\Rightarrow x(x - 3) - 4(x - 3) = 0$

$\Rightarrow (x - 3)(x - 4) = 0$

$\Rightarrow x = 3$ or 4

II. $y^2 - 4y + 3 = 0$

$\Rightarrow y^2 - 3y - y + 3 = 0$

$\Rightarrow y(y - 3) - 1(y - 3) = 0$

$\Rightarrow (y - 3)(y - 1) = 0$

$\Rightarrow y = 3$ or 1

Here, $x \geq y$

Hence, Option (d) is correct

15. Ans. E.

$X = \sqrt[3]{35937}$

$\Rightarrow X = 33$

$Y^2 - 66Y + 1089 = 0$

$\Rightarrow Y^2 - 2 \times 33Y + 33^2 = 0$

$\Rightarrow (Y - 33)^2 = 0$

$\Rightarrow Y = 33$

Hence, $X = Y$



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