Section : **Numerical Aptitude**

Q.1 An article is sold for ₹2070 at a 15% profit. If the article is sold for ₹1890, then what will be the gain/loss percent?

Ans

✗ 1. 10% loss

✗ 2. 5% loss

✗ 3. 10% gain

✓ 4. 5% gain

Q.2 What is the smallest number which when increased by 5 is divisible by 12, 18 and 30?

Ans

✓ 1. 175

✗ 2. 115

✗ 3. 235

✗ 4. 195

Q.3 What is the value of $\frac{\frac{2}{3} of \frac{9}{4} + \frac{1}{2} \div \frac{5}{4}}{1 - \frac{1}{3} + \frac{1}{4} \times \left(1 + \frac{1}{3}\right)}$?

Ans

✗ 1. $\frac{7}{10}$

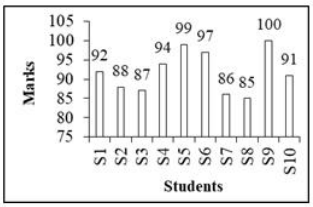
✗ 2. $\frac{9}{19}$

✓ 3. $\frac{19}{10}$

✗ 4. $\frac{7}{11}$

Q.4

The Bar graph given below presents the marks (out of 100) obtained by 10 students in a subject.



What is the average of the marks obtained by all the students?

Ans
1. 91.9
2. 90.9
3. 82.9
4. 89.9

Q.5 A is 20% more than B, which is 25% less than C. Which of the following is true about A and C?

Ans
1. $A = 0.9C$
2. $A = 1.1C$
3. $A = 0.95C$
4. $A = C$

Q.6 A mixture has milk and water in the ratio (by volume) of 8 : 3. If 3 litres of water is added to it, then new ratio of milk and water becomes 2 : 1. What are the quantities of milk and water respectively in the mixture initially?

Ans
1. 24 litres and 9 litres
2. 32 litres and 12 litres
3. 40 litres and 15 litres
4. 16 litres and 6 litres

Q.7 What is the average of first seven prime numbers (correct to two decimal places)?

Ans
1. 7.14
2. 8.76
3. 7.64
4. 8.29

Q.8 An article is sold for ₹810 at a loss of 10%. What should be the selling price if the loss is 20%?

Ans
1. ₹750
2. ₹630

3. ₹600

4. ₹720

Q.9 The side of a cube is 15 cm. What is the base area of a cuboid whose volume is 175 cm^3 less than that of the cube and whose height is 32 cm?

Ans

1. 200 cm^2
2. 100 cm^2
3. 160 cm^2
4. 325 cm^2

Q.10 An article is sold for ₹7650 after two successive discounts of 15% and 25%. What is the marked price of the article?

Ans

1. ₹15000
2. ₹10000
3. ₹14000
4. ₹12000

Q.11 The total surface area of a hollow cuboid is 340 cm^2. If the length and the breadth of the cuboid are 10 cm and 8 cm respectively, then what is the length of the longest stick that can be fitted inside the cuboid?

Ans

1. 10 cm
2. $4\sqrt{41}$ cm
3. $3\sqrt{21}$ cm
4. 21 cm

Q.12 A sum of money becomes 3 times in 10 years at the rate of compound interest (compounded annually). In how many years will it become 81 times?

Ans

1. 40 years
2. 50 years
3. 35 years
4. 30 years

Q.13 The ratio of monthly incomes of Ram and Rahim is 4 : 3 and the ratio of their monthly expenditures is 3 : 2. If each saves ₹5000 per month, then what are the respective monthly incomes of Ram and Rahim?

Ans
1. ₹12000 and ₹9000
2. ₹10000 and ₹7500
3. ₹16000 and ₹12000
4. ₹20000 and ₹15000

Q.14 A boat can travel 60 km in 3 hours while going downstream, It can travel 90 km in 5 hours while going upstream. What is the ratio of the speed of boat in still water to the speed of the stream?

Ans
1. 6 : 1
2. 4 : 1
3. 19 : 1
4. 10 : 9

Q.15 The simple interest for 9 years on a principal is $\frac{3}{5}$ of the principal. What is the rate of interest per annum?

Ans
1. 6%
2. 4%
3. $6\frac{2}{3}\%$
4. $5\frac{2}{3}\%$

Q.16 A can do a piece of work alone in 8 days. B can do the same work alone in 21 days. If they work together for 3 days, then how much work is completed?

Ans
1. $\frac{29}{67}$
2. $\frac{31}{65}$
3. $\frac{27}{64}$
4. $\frac{29}{56}$

Q.17 What is the value of $\frac{3}{7} \div \frac{9}{21} + 2 - \frac{4}{3} + \frac{1}{2}\ of\ \frac{12}{5} \times \frac{25}{18} \div \frac{5}{9}$?

Ans
1. 2
2. $\frac{17}{3}$
3. $\frac{14}{3}$

✗ 4. 4

Q.18 What is the average of first six natural numbers, which are multiples of 3?

Ans

✓ 1. 10.5

✗ 2. 11

✗ 3. 12

✗ 4. 9.5

Q.19 A train crosses a 600 metres long platform in 50 seconds. It crosses another 900 metres long platform in 60 seconds. What are the length and the speed of the train?

Ans

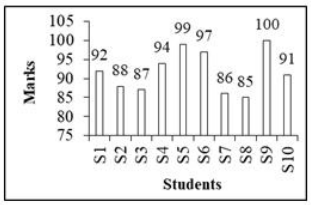
✗ 1. 900 metres, 96 km/h

✓ 2. 900 metres, 108 km/h

✗ 3. 600 metres, 108 km/h

✗ 4. 700 metres, 96 km/h

Q.20 The Bar graph given below presents the marks (out of 100) obtained by 10 students in a subject.



The average of marks obtained by S3 and S5 is what percent less than the marks obtained by S9?

Ans

✓ 1. 7%

✗ 2. 9%

✗ 3. 8%

✗ 4. 10%

Q.21 The height of a right circular cone is 5 cm and its base radius is 12 cm. What is the curved surface area of the cone?

Ans

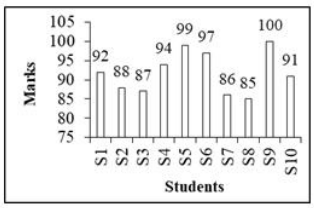
✗ 1. $132\,\pi cm^2$

✗ 2. $143\,\pi cm^2$

✓ 3. $156\,\pi cm^2$

✗ 4. $168\,\pi cm^2$

Q.22 The Bar graph given below presents the marks (out of 100) obtained by 10 students in a subject.



The marks obtained by S5 is how much percent more than the average marks of the students (correct to two decimal)?

Ans

✔ 1. 7.73%

✘ 2. 22.73%

✘ 3. 12.73%

✘ 4. 17.73%

Q.23 Pipe P can fill a tank alone in 7 hours. Pipe Q can fill the same tank alone in 13 hours. In how much time can they together fill the tank?

Ans

✘ 1. 3 hours 18 minutes

✘ 2. 3 hours 45 minutes

✘ 3. 4 hours 12 minutes

✔ 4. 4 hours 33 minutes

Q.24 For three numbers, the ratio of the first and the second number is 2 : 3 and that of the second and the third number is 4 : 5. If the sum of the three numbers is 140, then what is the second number?

Ans

✘ 1. 60

✔ 2. 48

✘ 3. 96

✘ 4. 32

Q.25 What is the median of 6, 9, 13, 8, 3, 2, 5, 7 and 11?

Ans

✔ 1. 7

✘ 2. 6.5

✘ 3. 8

✘ 4. 6