Section : **Numerical Aptitude**

Q.1 Marked price and cost price of an article are in ratio 5 : 4. If the profit earned by selling the article is 12.5%, then what is the discount percentage?

Ans

✗ 1. 12.5

✗ 2. 15

✗ 3. 8

✓ 4. 10

Q.2 The length, breadth and height of a cuboid are 5 cm, 2 cm and 4 cm respectively. What is the total surface area of the cuboid?

Ans

✗ 1. $84\ cm^2$

✗ 2. $152\ cm^2$

✗ 3. $38\ cm^2$

✓ 4. $76\ cm^2$

Q.3

A train leaves P at 9 am with speed of 30 km/h. Another train leaves Q at 11 am with speed of 45 km/h. The trains are travelling towards each other on parallel tracks. Distance between P and Q is 300 km. When they meet, what is the ratio of the distances covered by them?

Ans

1. 8 : 5 ✗
2. 13 : 12 ✓
3. 17 : 14 ✗
4. 11 : 9 ✗

Q.4 70 sticks each of unit length are combined to form a right angle triangle without breaking any stick. What is the area (in square units) of the triangle?

Ans

1. 210 ✓
2. 180 ✗
3. 240 ✗
4. 350 ✗

Q.5 A, B and C, working alone can do a piece of work in 15, 30 and 75 days respectively. They work together and get ₹1615 for completing the work. What is the difference in shares of A and C?

Ans

1. ₹760 ✓
2. ₹620 ✗
3. ₹680 ✗
4. ₹540 ✗

Q.6 What is the value of $90 \times 3 \div 9 + 4 \div 2 \times 3 \, of \, 4 \times 8 \div (18 \times 2 - 4)$?

Ans

1. 48 ✗
2. 40 ✗
3. 36 ✓
4. 42 ✗

Q.7 The ratio of milk and water in a mixture is 4 : 3. If we add 2 litres of water, the ratio of milk and water becomes 8 : 7. What is the quantity of the final mixture?

Ans

1. 18 litres ✗
2. 30 litres ✓
3. 24 litres ✗

✗ 4. 28 litres

Q.8 What is the largest two digit number which when divided by 6 and 5 leaves remainder 1 in each case?

Ans

✗ 1. 61

✗ 2. 93

✓ 3. 91

✗ 4. 97

Q.9 The average age of 12 boys is 15 years and the average age of 18 girls is 12 years. What is the combined average age of the boys and girls, taken together?

Ans

✗ 1. 15.4

✓ 2. 13.2

✗ 3. 16.6

✗ 4. 14.8

Q.10 The Table given below presents the marks obtained by three students in five examinations.

Exams	S1	S2	S3
E1	80	84	85
E2	72	91	99
E3	99	80	82
E4	96	95	93
E5	87	86	84

The marks obtained by S1 in Exam E5 is how much percentage (correct up to two places of decimal) more than that obtained by S2 in Exam E3?

Ans

✗ 1. 9.75

✓ 2. 8.75

✗ 3. 9.26

✗ 4. 10.24

Q.11

Given below is the data of the ages of various children.

Age (Years)	Number of children
6	17
7	16
8	16
9	17
10	19
11	15

What is the difference between the mean and mode of the ages?

Ans
1. ✔ 1.5
2. ✘ 1
3. ✘ 2.5
4. ✘ 2

Q.12 The Table given below presents the marks obtained by three students in five examinations.

Exams	S1	S2	S3
E1	80	84	85
E2	72	91	99
E3	99	80	82
E4	96	95	93
E5	87	86	84

What is the average of marks obtained by S3 per exam?

Ans
1. ✘ 84.6
2. ✔ 88.6
3. ✘ 82.6
4. ✘ 86.6

Q.13 An article is sold at $14\frac{2}{7}\%$ profit. What is the ratio of the selling price to the cost price?

Ans

1. 7 : 5
2. 8 : 7
3. 8 : 5
4. 7 : 6

Q.14 An article is sold for ₹6500 so as to earn a profit of 4%. A second article whose cost price is ₹3750, is sold at a loss of 4%. What is the overall gain or loss percent in the whole transaction?

Ans

1. Gain 4%
2. Loss 1%
3. Loss 4%
4. Gain 1%

Q.15 The diameter of a right circular cylinder is decreased to one third of its initial value. If the volume of the cylinder remains the same, then the height becomes how many times of the initial height?

Ans

1. 1
2. 9
3. 6
4. 3

Q.16 The Table given below presents the marks obtained by three students in five examinations.

Exams	S1	S2	S3
E1	80	84	85
E2	72	91	99
E3	99	80	82
E4	96	95	93
E5	87	86	84

What is the sum of marks obtained by S1 in Exam E4, S2 in Exam E1, S3 in Exam E3 and E5?

Ans

1. 346
2. 326
3. 366
4. 306

Q.17 If A = 40 ÷ 8 + 5 × 2 – 4 + 5 *of* 3 and B = 24 ÷ 4(4 + 2) + 19 *of* 2, then what is the value of A – B?

Ans
1. –11
2. 11
3. 13
4. –13 ✔

Q.18 In a bag, the ratio of the number of 2 rupee, 1 rupee and 50 paise coins is 3 : 4 : 5. If the total amount in the bag is ₹250, then how many 1 rupee coins are there?

Ans
1. 70
2. 100
3. 60
4. 80 ✔

Q.19 A sum invested at compound interest (compounded annual) amounts to ₹750 at the end of first year and ₹900 at the end of second year. What is the sum?

Ans
1. ₹700
2. ₹625 ✔
3. ₹600
4. ₹650

Q.20 What is the average of all the natural numbers from 49 to 125?

Ans
1. 85
2. 87 ✔
3. 88
4. 86

Q.21 If A : B is 2 : 3 and B – A = 28, then what is the value of B + A?

Ans
1. 120

2. 150
3. 130
4. 140

Q.22 The simple interest on a principal for 6 months at an interest rate of 10% per annum is ₹100. What is the principal?

Ans
1. ₹1000
2. ₹2000
3. ₹1500
4. ₹2500

Q.23 An inlet pipe A originating from a river can fill a reservoir in 30 days. And an outlet pipe B, which is capable of emptying the completely filled reservoir in 50 days, drains out the water from the reservoir to an irrigation canal. The pipes are opened on alternate days starting with A. On which day from the beginning will the reservoir get completely filled for the first time?

Ans
1. 75^{th}
2. 147^{th}
3. 150^{th}
4. 74^{th}

Q.24 Alok starts walking from P with speed of 6 km/h towards Q. Raman starts at same time from P towards Q with speed of 9 km/h. Raman reaches Q, turns back and starts walking towards P. He meets Alok at R. If PQ is 15 km, then what is PR?

Ans
1. 20 km
2. 12 km
3. 15 km
4. 18 km

Q.25 A number is first increased by $16\frac{2}{3}\%$ and then decreased by 15% to get 238. What is 37.5% of that number?

Ans
1. 150
2. 75
3. 120
4. 90