

Q1: If $5 : 8 = 35 : x$, then the value of x is:

- (a) 48
- (b) 56
- (c) 64
- (d) 72

Solution:

$$\frac{5}{8} = \frac{35}{x} \implies x = \frac{8 \times 35}{5} = 56$$

Answer: B

Q2: The ratio of 45 minutes to 2 hours is:

- (a) 3:4
- (b) 3:8
- (c) 4:3
- (d) 8:3

Solution:

$$\begin{aligned}2 \text{ hours} &= 120 \text{ minutes} \\ \text{Ratio} &= \frac{45}{120} = \frac{3}{8}\end{aligned}$$

Answer: B

Q3: 35% of 400 is equal to:

- (a) 120
- (b) 140
- (c) 160
- (d) 180

Solution:

$$35\% \text{ of } 400 = \frac{35}{100} \times 400 = 140$$

Answer: B

Q4: What percentage is 60 of 240?

- (a) 20%
- (b) 25%
- (c) 30%
- (d) 35%

Solution:

$$\frac{60}{240} \times 100 = 25\%$$

Answer: B

Q5: A number is increased by 15% and then decreased by 15%. The net change in the number is:

- (a) 0%
- (b) 2.25% decrease
- (c) 2.25% increase
- (d) 15% decrease

Solution: Let the number be x .

$$x \times 1.15 \times 0.85 = 0.9775x$$

$$\text{Net change} = (1 - 0.9775) \times 100 = 2.25\% \text{ decrease}$$

Answer: B

Q6: The price of a mobile phone is reduced by 8%. If the original price was Rs.12,500, the new price is:

- (a) Rs.11,500
- (b) Rs.11,600
- (c) Rs.11,700
- (d) Rs.11,800

Solution:

$$\text{New price} = 12500 \times 0.92 = 11500$$

Answer: A

Q7: If the cost price of a bicycle is Rs.3,000 and the selling price is Rs.3,600, the profit percentage is:

- (a) 15%
- (b) 18%
- (c) 20%
- (d) 25%

Solution:

$$\text{Profit} = 3600 - 3000 = 600$$

$$\text{Profit percentage} = \frac{600}{3000} \times 100 = 20\%$$

Answer: C

Q8: A farmer sells a cow for Rs.8,000 at a loss of 20%. The cost price of the cow is:

- (a) Rs.9,000
- (b) Rs.10,000
- (c) Rs.11,000
- (d) Rs.12,000

Solution:

$$\text{Selling price} = 0.80 \times \text{Cost price} \implies 8000 = 0.80 \times \text{Cost price}$$

$$\text{Cost price} = \frac{8000}{0.80} = 10000$$

Answer: B

Q9: The simple interest on Rs.1,200 for 4 years at 6% per annum is:

- (a) Rs.288
- (b) Rs.300
- (c) Rs.312
- (d) Rs.320

Solution:

$$\text{Simple Interest} = \frac{1200 \times 6 \times 4}{100} = 288$$

Answer: A

Q10: If the principal is Rs.2,500, the rate is 12% per annum, and the time is 1.5 years, the simple interest is:

- (a) Rs.360
- (b) Rs.400
- (c) Rs.450
- (d) Rs.500

Solution:

$$\text{Simple Interest} = \frac{2500 \times 12 \times 1.5}{100} = 450$$

Answer: C

Q11: In a school of 600 students, 22% are girls. The number of boys is:

- (a) 420
- (b) 440
- (c) 468
- (d) 480

Solution:

$$\text{Number of girls} = 0.22 \times 600 = 132$$

$$\text{Number of boys} = 600 - 132 = 468$$

Answer: C

Q12: A bus travels 240 km in 4 hours. If it travels at the same speed, the distance covered in 3 hours is:

- (a) 160 km
- (b) 180 km
- (c) 200 km
- (d) 220 km

Solution:

$$\text{Speed} = \frac{240}{4} = 60 \text{ km/h}$$

$$\text{Distance} = 60 \times 3 = 180 \text{ km}$$

Answer: B

Q13: The ratio of milk to water in a mixture is 7:3. If there are 30 liters of the mixture, the quantity of milk is:

- (a) 15 liters
- (b) 18 liters
- (c) 21 liters
- (d) 24 liters

Solution:

$$\text{Total parts} = 7 + 3 = 10$$

$$\text{Quantity of milk} = \frac{7}{10} \times 30 = 21 \text{ liters}$$

Answer: C

Q14: A shop offers a 15% discount on a dress priced at Rs.1,200. The selling price of the dress is:

- (a) Rs.960
- (b) Rs.1,000
- (c) Rs.1,020
- (d) Rs.1,080

Solution:

$$\text{Selling price} = 1200 \times 0.85 = 1020$$

Answer: C

Q15: The salary of an employee is increased by 10% every year. If the current salary is Rs.25,000, the salary after 2 years will be:

- (a) Rs.27,500
- (b) Rs.28,500
- (c) Rs.29,500
- (d) Rs.30,000

Solution:

$$\text{Salary after 2 years} = 25000 \times (1.10)^2 = 25000 \times 1.21 = 30250$$

Note: The closest option is Rs.30,000. **Answer:** D