

Problems on Profit and Loss Questions with Solutions Pdf

1. Oranges are bought at 5 for Rs. 10 and sold at 6 for Rs. 15. The profit or loss as percentage is

- a. 25%
- b. 35%
- c. 40%
- d. 50%

Ans: A

Suppose, number of oranges bought = L.C.M. of 5 and 6 = 30.

$$\text{C.P. of 30 oranges} = ₹ \left(\frac{10}{5} \times 30 \right) = ₹ 60.$$

$$\text{S.P. of 30 oranges} = ₹ \left(\frac{15}{6} \times 30 \right) = ₹ 75.$$

$$\therefore \text{Profit\%} = \left(\frac{15}{60} \times 100 \right) \% = 25\%.$$

2. Reynolds superink pens are bought at the rate of 8 for Rs. 100. To make a profit of 60 percent, these must be sold at

- a. 5 for Rs. 100
- b. 6 for Rs. 100
- c. 9 for Rs. 200
- d. None of these

Ans: A

C.P. of 8 pens = ₹ 100. S.P. of 8 pens = 160% of ₹ 100 = ₹ 160.

For ₹ 160, pens sold = 8.

For ₹ 100, pens sold = $\left(\frac{8}{160} \times 100\right) = 5$.

3. Nikita bought 3 kg of wheat at the rate of Rs. 9.50 per kg and 40 kg of wheat at the rate of Rs. 8.50 per kg and mixed them. She sold the mixture at the rate of Rs. 8.90 per kg. Her total profit or loss in the transaction was

- a. Rs. 2 loss
- b. Rs. 2 profit
- c. Rs. 7 loss
- d. Rs. 7 profit

Ans: A

C.P. of 70 kg wheat

= ₹ $(30 \times 9.50 + 40 \times 8.50) = ₹ (285 + 340) = ₹ 625$.

S.P. of 70 kg wheat

= ₹ $(70 \times 8.90) = ₹ 623$.

∴ Loss = ₹ $(625 - 623) = ₹ 2$.

4. A shopkeeper bought 30 kg of wheat at the rate of Rs. 45 per kg. He sold forty percent of the total quantity at the rate of Rs. 50 per kg. Approximately at what price per kg should he sell the remaining quantity to make 25 percent overall profit?

- a. Rs. 50
- b. Rs. 52
- c. Rs. 54
- d. Rs. 56
- e. Rs. 60

Ans: E

C.P. of 30 kg wheat = ₹ $(30 \times 45) = ₹ 1350$.

Quantity of wheat sold = 40% of 30 kg = 12 kg.

Quantity left = $(30 - 12)$ kg = 18 kg.

For 25% profit, desired S.P. = ₹ $\left(\frac{125}{100} \times 1350\right) = ₹ 1687.50$.

Money realised by selling 12 kg wheat = ₹ $(12 \times 50) = ₹ 600$.

Balance required = ₹ $(1687.50 - 600) = ₹ 1087.50$.

∴ Required price = ₹ $\left(\frac{1087.50}{18}\right)$ per kg

= ₹ 60.41 per kg \approx ₹ 60 per kg.

5. Samant bought a microwave oven and paid 10% less than the original price. He sold it with 30% profit on the price he had paid. What percentage of profit did Samant earn on the original price?

a. 17%

b. 20%

c. 27%

d. 32%

Ans: A

Let original price = ₹ 100.

Then, C.P. = ₹ 90, S.P. = 130% of ₹ 90 = ₹ $\left(\frac{130}{100} \times 90\right) = ₹ 117$.

∴ Required percentage = $(117 - 100)\% = 17\%$.