

① Let CP be 100, then SP will be $100 - 16 = 84$.

$$LP = \frac{100}{100-30} \times SP = \frac{100}{70} \times 84 = 120$$

$$10\% \text{ of } LP = 120 \times \frac{10}{100} = 12$$

$$SP = 120 - 12 = 108$$

$$\text{Profit} = 108 - 100 = 8$$

$$\text{Profit \%} = \frac{8}{100} \times 100 = 8\%$$

② Sp of one site = £18,000, other one is also £18,000

on one, profit = 25% on both, loss = 25%

$$CP = \frac{100}{125} \times 18000 = 14,400 \quad \text{Total CP} = 14,400 + 24,000 = 38,400$$

$$CP = \frac{100}{75} \times 18000 = 24,000$$

$$\text{Total SP} = 18,000 \times 2 = 36,000$$

$$\text{Loss} = 38,400 - 36,000$$

$$= £2,400$$

$$\text{Total Profit} = \frac{36,000}{58,400} =$$

$$1\% = \frac{2400}{38400} \times 100 = 6\frac{1}{4}\%$$

(4)

$$\text{CP of 90 bags} = 450 \times 90 = 40500$$

$$\text{SP of 30 bags at 20\% profit} = \frac{180}{100} \times 40500 \times 30 = \text{£ } 16,200$$

$$\text{SP of 20 bags} = 20 \times 450 \times \frac{94}{100} = 8460$$

$$\begin{aligned} \text{SP of 90 bags} &= 40500 - (16,200 + 8460) \\ &= \text{£ } 15,480 \end{aligned}$$

$$40500 \times \frac{109}{100} = 44145$$

$$\text{Cost per bag} = \frac{44145}{90} = 497.125$$

(5)

$$20\% = \text{£ } 7500$$

$$100\% = \frac{7500 \times 100}{20} = 37,500 \text{ CP}$$

$$\text{SP} = \frac{120}{100} \times 37,500 = 45000$$

$$45000 \times \frac{100}{90} = 50,000$$