

PROFIT, LOSS AND DISCOUNT

1. $CP > SP = \text{LOSS}$

$$\text{LOSS} = CP - SP$$

$$\text{LOSS } \% = \frac{CP - SP}{CP} \times 100$$

CP = cost price
SP = selling price

2. $CP < SP = \text{profit}$

$$\text{profit} = SP - CP$$

$$\text{profit } \% = \frac{SP - CP}{CP} \times 100$$

3. L%, P%, SP

$$CP = \frac{100}{100 - L\%} \times SP$$

$$CP = \frac{100}{100 + P\%} \times SP$$

$$CP = \frac{100}{100 \pm P/L (\%)} \times SP$$

4. L%, P%, CP

$$SP = \frac{100 - L\%}{100} \times CP$$

$$SP = \frac{100 \pm P/L (\%)}{100} \times CP$$

$$SP = \frac{100 + P\%}{100} \times CP$$

p.9 No:- 83

$$1. CP = 120 \times 80 + 280 + 0.4 \times 170 + 72$$
$$= 10,000$$

$$\text{profit} = 8\%$$

$$SP = ?$$

$$SP = \frac{108}{100} \times 10,000 = 10,800$$

$$SP \text{ per ream} = \frac{10,800}{170} = 90$$

2. Given 2000 No's

$$\frac{95}{100} \times 2000 = 1900$$

$$S.P = 1900 \times 25 = 47,500$$

$$\text{profit} = 25\%$$

$$CP = \frac{100}{125} \times 47,500$$

$$= 38,000$$

$$\text{passed} = 1000$$

$$SP = 1000 \times 25 = 25,000$$

$$\text{Loss} = 38,000 - 25,000$$

$$= 13,000$$

$$3. SP = 1920$$

$$\text{profit} = ?$$

$$\frac{SP - CP}{CP} \times 100 = \frac{CP - SP}{CP} \times 100$$

$$1920 - CP = CP - 1280$$

$$2CP = 3200$$

$$CP = 1600$$

$$\text{profit} = 25\%$$

$$SP = ?$$

$$SP = \frac{125}{100} \times 1600$$

$$= 2000$$

$$4. S.P = 177 \text{ per kg}$$

$$\text{profit} = 18\%$$

$$\begin{array}{rcl} 2 \text{ kg} & 3 \text{ kg} & = 5 \text{ kg} \\ | & | & \\ 200 \text{ Per kg} & ? & \end{array}$$

$$\text{Total S.P} = 5 \times 177 = 885$$

$$C.P = \frac{100}{118} \times 885$$

$$= 750$$

$$2 \times 200 + 3 \times x = 750$$

$$x = 116.67 \text{ per kg}$$

Level-2

61

$$1. \frac{12000 \times 1 \times 10}{100} + \frac{x \times 1 \times 20}{100} = \frac{(12000+x) \times 1 \times 14}{100}$$

$$x = 8000$$

$$\text{Total} = 12000 + 8000$$

$$= 20,000$$

4.

$$\frac{P}{3} - 7\%$$

$$\frac{P}{4} - 8\%$$

$$\frac{5P}{12} - 10\%$$

$$P - \left(\frac{P}{3} + \frac{P}{4} \right) = \frac{5P}{12}$$

$$I = \text{RS. } 561$$

$$\frac{\frac{P}{3} \times 1 \times 7}{100} + \frac{\frac{P}{4} \times 1 \times 8}{100} + \frac{\frac{5P}{12} \times 1 \times 10}{100} = 561$$

$$P = 6600$$