Ch-7

Percent and Percentage

Ex-7(A)

1. Evaluate:

(i) 55% of 160 + 24% of 50 − 36% of 150

Ans $\frac{\overset{11}{\cancel{55}} \times \overset{8}{\cancel{160}}}{\underset{5}{\cancel{100}}} + \frac{\overset{12}{\cancel{24}} \times \cancel{50}}{\underset{2}{\cancel{100}}} - \frac{\overset{18}{\cancel{36}} \times \overset{3}{\cancel{150}}}{\underset{2}{\cancel{100}}}$

$= 11 \times 8 + 12 - 18 \times 3$

$= 88 + 12 - 54$

$= 100 - 54$

$= 46$

(ii) 9·3 % of 500 − 4·8 % of 250 − 2·5 % of 240

$$\frac{9\cdot3\times500}{100} - \frac{4\cdot8\times250}{100} - \frac{2\cdot5\times240}{100}$$

$= 9\cdot3\times5 - 1\cdot2\times10 - 0\cdot5\times12$

$= 46\cdot5 - 12 - 6 = 46\cdot5 - 18$

$= 28\cdot5$

2·0 A number is increased from 125 to 150; find the percentage increase.

Ans- Original value = 125

New value = 150

Increase = 150 − 125 = 25

$$\text{Increase \%} = \frac{25}{125}\times100 = 25\ \%$$

(ii) A number is decreased from 125 to 100; find the percentage decrease.

Ans Original number = 125

New value = 100

Decrease = (125 - 100) = 25

$$\text{Decrease \%} = \frac{25}{125} \times 100 = 20\%$$

3. Find:

(i) 45 is what percent of 54?

Ans- Let 45 = x percent of 54 $= \frac{54 \times x}{100}$

$$\Rightarrow x = \frac{\overset{5}{\cancel{45}} \times 100}{\underset{6}{\cancel{54}}} = \frac{5 \times \overset{50}{\cancel{100}}}{\underset{3}{\cancel{6}}}$$

$$= \frac{250}{3} = 83\frac{1}{3}\%$$

Required Percentage = $83\frac{1}{3}\%$

(ii) 2.7 is what percent of 18?

Ans- Let 2.7 = x percent of 18 = $\frac{18 \times x}{100}$

$$\therefore \quad x = \frac{2.7 \times 100}{18} = \frac{\overset{30}{\cancel{270}}}{\underset{2}{\cancel{18}}} = \frac{30}{2} = 15$$

Required percentage = 15%