

H.C.O  
30/9/21

Ex-7(c)

$$8. \text{ Maths percentage} = \frac{120}{150} \times 100 = 80\%$$

$$\text{English Percentage} = \frac{136}{200} \times 100 = 68\%$$

$$\text{Science Percentage} = \frac{108}{150} \times 100 = 72\%$$

$$\text{Total number scored} = 120 + 136 + 108 = 364$$

$$\text{Maximum marks} = 150 + 200 + 150 = 500$$

$$\therefore \text{Overall \%} = \frac{364}{500} \times 100 = 72.8\%$$

9. Let age of B = 100 years

$$\therefore \text{Age of A} = 100 + 100 \times \frac{25}{100} = 125 \text{ years}$$

Difference in age by which A is older than B

$$= 125 - 100$$

$$= 25 \text{ years}$$

$$\therefore \% \text{ by which B is younger than A} = \frac{25}{125} \times 100 = 20\%$$

11. Total number of votes polled =  $29200 + 58800 + 72000$   
=  $160000$

$\therefore$  Percentage of votes scored by winning candidate  
=  $\frac{72000}{160000} \times 100 = 45\%$

12. (?) Let the number be  $x$ .

By the given conditions,

$$x + \frac{23x}{100} = 861$$

$$\Rightarrow \frac{100x + 23x}{100} = 861$$

$$\Rightarrow x \left( \frac{123}{100} \right) = 861$$

$$\Rightarrow x = \frac{861 \times 100}{123} = 700$$

$\therefore$  Required number = 700

(ii) Let the number = 100

By the given condition.

$$x - \frac{x \times 16}{100} = 798$$

$$\Rightarrow \frac{100x - 16x}{100} = 798$$

$$\Rightarrow \frac{84x}{100} = 798$$

$$\Rightarrow 84x = \frac{798 \times 100}{84} = \frac{114 \times 100}{12} = 950$$

$\therefore$  So the required number is 950.

13. ~~B~~ Let price of  $x$  kg of sugar = ₹100

Increase in price = 20%

$$\therefore \text{New price} = 100 + 20 = ₹120$$

$\therefore$  For ~~₹100~~ ₹120, sugar obtained =  $x$  kg

$$\text{For ₹100, sugar obtained} = \frac{x}{120} \times 100 = \frac{5x}{6} \text{ kg}$$

Original consumption =  $x$  kg

New consumption =  $\frac{5x}{6}$  kg

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$$\text{Decrease in consumption} = x - \frac{5x}{6} = \frac{x}{6}$$

Required % of decrease in consumption

$$= \frac{\frac{x}{6}}{x} \times 100 = \frac{x}{6x} \times 100 = \frac{100}{6} = \frac{100}{6} = \frac{50}{3} = 16\frac{2}{3}\%$$

Ex-8 (A)

6. Gain =  $\frac{1}{6}$  of (3600) =  $\frac{1}{6} \times 3600 = \text{₹}600$

(i) Thus gain = ₹600

(ii) CP = 3600 - 600  
= ~~₹3600~~ ₹3000

(iii) Gain % =  $\frac{600}{3000} \times 100 = 20\%$

15. (i) Let CP of Radio set = ₹x

$$\text{Gain} = \text{₹}x$$

$$\text{S.P} = \text{₹} \left( x + \frac{x}{9} \right) = \left( \frac{9x + x}{9} \right) = \text{₹} \frac{10x}{9}$$

But we are given SP of the set radio = ₹250

$$\frac{10x}{9} = 250$$

$$\Rightarrow x = 250 \times \frac{9}{10} \Rightarrow x = ₹ 225$$

$$(ii) \text{ Profit} = ₹ \frac{x}{9}$$

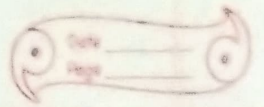
$$= ₹ \frac{225}{9}$$

∴ Substituting the value of  $x$   
 $= ₹ 25$

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

$$= \frac{25}{225} \times 100 = \frac{100}{9} \% = 11\frac{1}{9} \%$$

# Ex- 8(B)



11. Let CP of the scooter for Rajesh = ₹100x

$$\therefore \text{SP for Rajesh} = \frac{100x \times 92}{100} = 92x$$

This will be CP for Rahim = 92x, Gain = 5%

$$\text{SP for Rahim} = \frac{92x \times 105}{100}$$

$$= \frac{966x}{10}$$

This will be CP for Prem = ₹14490

$$\frac{966x}{10} = 14490$$

$$\Rightarrow x = \frac{14490 \times 10}{966} = 150$$

(1) CP of scooter for Rahim = 92x = 92 × 150 = ₹13800

$$\text{SP of scooter for Rahim} = \frac{966x}{10} = \frac{966}{10} \times 150$$

$$= \frac{966 \times 150}{10} = 14490$$

(ii) CP of scooter for Rajesh =  $100\% = 100 \times 150$   
 $= 100 \times 150$   
 $= ₹ 15000$

SP of scooter for Rajesh =  $92\% (92 \times 150)$   
 $= ₹ 13800$

12. Mohan paid for articles = ₹ 912

Peter sold the article to Mohan

For Peter

SP = ₹ 912, Loss = 5%

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

$$= \frac{100}{(100 - 5)} \times 912$$

$$= \frac{100}{95} \times 912 = 20 \times 48$$

$$= ₹ 960$$

John sold the same article to Peter  
 For John:

SP = ₹ 960

Profit = 20%

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

$$= \frac{100}{(100 + 20)} \times 960$$

$$= \frac{100}{120} \times 960$$

$$= ₹800$$

Hence, John paid for the article = ₹800