

## Exercise - 8 'E'

$$\uparrow \text{ sol: - } Sp \times \left[ \frac{100 + x}{100} \right]$$

⇒ Wrist watch cost ₹540  
Rate of tax = 8%

$$\Rightarrow 540 \times \left[ \frac{100 + 8}{100} \right]$$

$$\Rightarrow \frac{540 \times 108}{100} = 583.20$$

Hence  $\Rightarrow 540 \times \frac{108}{100} = \frac{58320}{100} = 583.20$

⇒ Hence total amount paid by Rajat = 583.20

$$2) \text{ sol: - Tax} = 345.60$$
$$\text{Sale price} = 3840$$

$$\text{Rate of tax} = \frac{\text{Tax}}{\text{Sale price}} \times 100$$

$$= \frac{345.60}{3840} \times 100 = 180 \times 5 = 900$$
$$= 9.00$$
$$= 9\%$$

Hence Rate of tax = 9%

3. Let the O.p. be  $x$   
Inclusive tax = 13,530

$$\Rightarrow x + 10\% \text{ of } x = 13530$$
$$\frac{x + 10x}{100} = 13530$$

$$\Rightarrow \frac{x \times 100 + 10x \times 1}{100} = 13530$$

$$\Rightarrow \frac{100x + 10x}{100} = 13530$$

$$\Rightarrow \frac{110x}{100} = 13530$$

$$\Rightarrow x = \frac{13530 \times 100}{110} = 12300$$

Hence Basic price = 12300

4. sol  $\rangle$  Biscuit cost = ₹158  
Rate of tax = 6%

$$\Rightarrow 158 + \frac{6}{100} \times 158$$

$$\Rightarrow 158 + \frac{948}{100}$$

$$\Rightarrow 158 + 9.48$$

$$\Rightarrow 167.48$$

Price of Biscuit = 167.48

Cosmetic = ₹ 354  
Rate of tax = 9%

$$\Rightarrow 354 + \frac{9}{100} \times 354$$

$$\Rightarrow 354 + \frac{3186}{100}$$

$$\Rightarrow 354 + 31.86$$

$$\Rightarrow 385.86$$

$$\text{Total amount} = 167.48 + 385.86 \\ = 553.34$$

5) and In first case -

Let the Mp be  $x$

$$\Rightarrow x + 9\% \text{ of } x = 13407$$

$$x + \frac{9}{100} \times x = 13407$$

$$x + \frac{9x}{100} = 13407$$

$$\frac{x \times 100 + 9x \times 1}{100} = 13407$$

$$\frac{100x + 9x}{100} = 13407$$

$$\frac{109x}{100} = 13407$$

$$= \frac{123}{109} \times 13407 \times 100 = 12300$$

⇒ 2<sup>nd</sup> case -  
13% of 12300

$$\frac{13}{100} \times 12300 = 1599$$

$$12300 + 1599 = 13899$$

$$13899 - 13407 = 492$$

Hence he has to pay ₹ 492