

Profit and Loss

Ex 10C

Q1.

Answer :

List price of the refrigerator = Rs 14650

Sales tax = 6% of Rs 14650

$$= \text{Rs} \left(14650 \times \frac{6}{100} \right) = \text{Rs} \ 879$$

Bill amount = Rs (14650 + 879)

$$= \text{Rs} \ 15529$$

Hence, the cost of the refrigerator is Rs 15,529.

Q2.

(i)

Cost of the tie = Rs. 250

Sales tax = 6% of Rs 250

$$= \text{Rs.} \left(250 \times \frac{6}{100} \right)$$

$$= \text{Rs.} \ 15$$

Hence, bill amount = Rs (250 + 15)

$$= \text{Rs.} \ 265$$

(ii) **Cost of the medicines = Rs. 625**

Sales tax = 4% of Rs. 625

$$= \text{Rs.} \left(625 \times \frac{4}{100} \right)$$

$$= \text{Rs.} \ 25$$

Hence, bill amount = Rs (625 + 25)

$$= \text{Rs} \ 650$$

(iii) **Cost of the cosmetics = Rs 430**

Sales tax = 10% of Rs 430

$$= \text{Rs} \left(430 \times \frac{10}{100} \right)$$

$$= \text{Rs} \ 43$$

Hence, bill amount = Rs (430 + 43)

$$= \text{Rs. } 473$$

(iv) Cost of clothes = Rs 1175

Sales tax = 8% of Rs 1175

$$= \text{Rs} \left(1175 \times \frac{8}{100} \right)$$

$$= \text{Rs } 94$$

Hence, bill amount = Rs (1175 + 94)

$$= \text{Rs. } 1269$$

Therefore, total amount to be paid by Reena = bill amount of all the four items

$$= \text{Rs} (265 + 650 + 473 + 1269)$$

$$= \text{Rs } 2657$$

Q3.

Answer :

Let the original price of the watch be Rs x .

VAT = 10% of Rs x

$$= \text{Rs} \left(x \times \frac{10}{100} \right)$$

$$= \text{Rs} \frac{10x}{100}$$

\therefore Price including VAT = Rs $\left(x + \frac{x}{10} \right)$

$$= \text{Rs} \frac{11x}{10}$$

$$\text{Now, } \frac{11x}{10} = 1980$$

$$\Rightarrow x = \left(1980 \times \frac{10}{11} \right)$$

$$= 1800$$

Hence, the original price of the watch is Rs 1,800.

Q4.

Answer :

Let the original price of the shirt be Rs x .

VAT = 7% of Rs x

$$= \text{Rs.} \left(x \times \frac{7}{100} \right)$$

$$= \text{Rs.} \frac{7x}{100}$$

\therefore Price including VAT = Rs. $\left(x + \frac{7x}{100} \right)$

$$= \text{Rs.} \frac{107x}{100}$$

$$\text{Now, } \frac{107x}{100} = 1337.50$$

$$\Rightarrow x = \text{Rs} \left(1337.50 \times \frac{100}{107} \right)$$

$$= \text{Rs } 1250$$

Hence, the original price of the shirt is Rs 1,250.

Q5.

Answer :

Let the price of 10 g of gold be Rs x .

VAT = 1% of Rs x

$$= \text{Rs} \left(x \times \frac{1}{100} \right)$$

$$= \text{Rs} \frac{x}{100}$$

\therefore Price including VAT = Rs. $\left(x + \frac{x}{100} \right)$

$$= \text{Rs} \frac{101x}{100}$$

$$\text{Now, } \frac{101x}{100} = 15756$$

$$\Rightarrow x = \text{Rs} \left(15756 \times \frac{100}{101} \right)$$

$$= \text{Rs } 15600$$

Hence, the price of 10 g of gold is Rs 15,600.

Q6.

Answer :

Let the original price of the computer be Rs x .

$$\begin{aligned}\text{VAT} &= 4\% \text{ of Rs. } x \\ &= \text{Rs. } \left(x \times \frac{4}{100}\right) \\ &= \text{Rs. } \frac{4x}{100}\end{aligned}$$

$$\begin{aligned}\therefore \text{Price including VAT} &= \text{Rs. } \left(x + \frac{4x}{100}\right) \\ &= \text{Rs. } \frac{104x}{100}\end{aligned}$$

$$\text{Now, } \frac{104x}{100} = 37960$$

$$\begin{aligned}\Rightarrow x &= \left(37960 \times \frac{100}{104}\right) \\ &= 36500\end{aligned}$$

\therefore The original price of the computer is Rs 36,500

Q7.

Answer :

Let the original cost of the spare parts be Rs x .

$$\text{VAT} = 12\% \text{ of Rs. } x = \text{Rs. } \left(x \times \frac{12}{100}\right) = \text{Rs. } \frac{12x}{100}$$

$$\begin{aligned}\therefore \text{Price including VAT} &= \text{Rs. } \left(x + \frac{12x}{100}\right) \\ &= \text{Rs. } \frac{112x}{100}\end{aligned}$$

$$\text{Now, } \frac{112x}{100} = 20776 \Rightarrow x = \left(20776 \times \frac{100}{112}\right) = 18550$$

Hence, the original cost of the spare parts is Rs 18,550.

Q8.

Answer :

Let the list price of the TV set be Rs x .

$$\begin{aligned}\text{VAT} &= 8\% \text{ of Rs. } x \\ &= \text{Rs. } \left(x \times \frac{8}{100}\right) \\ &= \text{Rs. } \frac{8x}{100}\end{aligned}$$

$$\begin{aligned}\therefore \text{Price including VAT} &= \text{Rs. } \left(x + \frac{8x}{100}\right) \\ &= \text{Rs. } \frac{108x}{100}\end{aligned}$$

$$\text{Now, } \frac{108x}{100} = 27000$$

$$\begin{aligned}\Rightarrow x &= \left(27000 \times \frac{100}{108}\right) \\ &= 25000\end{aligned}$$

Hence, the list price of the TV set is Rs 25,000.

Q9.

Answer :

Let the rate of VAT be $x\%$. Then, we have:

$$840 + x\% \text{ of } 840 = 882$$

$$\Rightarrow \left(\frac{x}{100} \times 840\right) = 882 - 840$$

$$\Rightarrow \frac{84x}{100} = 42$$

$$\begin{aligned}\Rightarrow x &= \left(42 \times \frac{100}{84}\right) \\ &= 5\end{aligned}$$

\therefore The rate of VAT is 5%.

Q10.

Answer :

Let the rate of VAT be $x\%$. Then, we have:

$$\begin{aligned}18500 + x\% \text{ of } 18500 &= 19980 \\ \Rightarrow \left(\frac{x}{100} \times 18500\right) &= 19980 - 18500 \\ \Rightarrow 185x &= 1480 \\ \Rightarrow x &= \frac{1480}{185} \\ &= 8\end{aligned}$$

\therefore The rate of VAT is 8%.

Q11.

Answer :

Let the rate of VAT be $x\%$. Then, we have:

$$\begin{aligned}34000 + x\% \text{ of } 34000 &= 382500 \\ \Rightarrow \left(\frac{x}{100} \times 340000\right) &= 382500 - 340000 \\ \Rightarrow 3400x &= 42500 \\ \Rightarrow x &= \frac{42500}{3400} \\ &= 12.5\end{aligned}$$

\therefore The rate of VAT is 12.5%.