Exercise 11A

Q9

Answer :

Cost price of a video = Rs. 12000

SP of a video at a gain of 10% = $\left\{\frac{(100 + \text{Gain \%})}{100} \times \text{CP}\right\}$

$= \left\{\frac{(100 + 10)}{100} \times 12000\right\}$

$= \left\{\frac{110}{100} \times 12000\right\}$

$= \text{Rs.}\, 13200$

So, Rahul purchased at a cost price of Rs. 13200.

Rahul sells it at a loss of 5%.

SP of a video at loss of 5% = $\left\{\frac{(100 - \text{Loss \%})}{100} \times \text{CP}\right\}$

$= \left\{\frac{(100 - 5)}{100} \times 13200\right\}$

$= \frac{95}{100} \times 13200$

$= \text{Rs. } 12540$

∴ Rakesh pays = Rs. 12540

Q10

Answer :

SP of the sofa set = Rs. 21600

Gain% = 8

$$\text{CP of the sofa set} = \left\{\frac{100}{(100 + \text{Gain\%})} \times \text{SP}\right\}$$

$$= \left\{\frac{100}{(100 + 8)} \times 21600\right\}$$

$$= \frac{2160000}{108}$$

$$= \textbf{Rs. } 20000$$

He purchased it at the cost of Rs. 20000.

Q11

Answer :

SP of the watch = Rs 11400

Loss% = 5

$$\text{CP} = \left\{\frac{100}{(100 - \text{Loss \%})} \times \text{SP}\right\}$$

$$= \left\{\frac{100}{(100 - 5)} \times 11400\right\}$$

$$= \frac{11400}{95}$$

$$= \textbf{Rs. } 12000$$

He purchased it at the cost of Rs. 12000.

Q12

Answer :

SP of the calculator = Rs. 1325

Gain % = 6

CP of the calculator = $\left\{\frac{100}{(100 + \text{Gain \%})} \times \text{SP}\right\}$

$= \left\{\frac{100}{(100 + 6)} \times 1325\right\}$

$= \frac{132500}{106}$

$= \text{Rs. } 1250$

$\text{SP of the calculator} = \left\{\frac{(100 + \text{Gain \%})}{100} \times \text{CP}\right\}$

$= \left\{\frac{(100 + 12)}{100} \times 1250\right\}$

$= \frac{140000}{100}$

$= \text{Rs. } 1400$

Q13

Answer :

SP of a computer = Rs. 24480

Loss% = 4

$\text{CP of the computer} = \left\{\frac{100}{(100 - \text{Loss \%})} \times \text{SP}\right\}$

$= \left\{\frac{100}{(100 - 4)} \times 24480\right\}$

$= \frac{2448000}{96}$

$= \text{Rs. } 25500$

In order to gain 4%:

$$\text{SP of the computer} = \left\{\frac{(100 + \text{Gain \%})}{100} \times \text{CP}\right\}$$

$$= \left\{\frac{(100 + 4)}{100} \times 25500\right\}$$

$$= \left\{\frac{104}{100} \times 25500\right\}$$

$$= \frac{2652000}{100}$$

$$= \text{Rs. } 26520$$

Q14

Answer :

Let the CP of the tricycle be Rs. x

$$\text{SP at 15\% gain} = \left\{\frac{(100 + \text{Gain \%})}{100} \times \text{CP}\right\}$$

$$= \left\{\frac{(100 + 15)}{100} \times x\right\}$$

$$= \frac{115}{100}x$$

$$= \text{Rs. } \frac{23}{20}x$$

$$\text{SP at 20\% gain} = x \times \frac{120}{100} = \text{Rs. } \frac{6}{5}x$$

********** END **********