Compound Interest Ex 14.1 Q6

Answer :

$$\text{Given :}$$
$$\text{P} = \text{Rs } 16,000$$
$$\text{R} = 12.5\% \text{ p. a.}$$
$$\text{n} = 3 \text{ years}$$
$$\text{We know that :}$$
$$\text{A} = \text{P}\left(1 + \frac{\text{R}}{100}\right)^{\text{n}}$$
$$= 16,000\left(1 + \frac{12.5}{100}\right)^{3}$$
$$= 16,000(1.125)^{3}$$
$$= \text{Rs } 22,781.25$$
$$\text{Now,}$$
$$\text{CI} = \text{A} - \text{P}$$
$$= \text{Rs } 22,781.25 - \text{Rs } 16,000$$
$$= \text{Rs } 6,781.25$$

Compound Interest Ex 14.1 Q7

Answer :

Given :

$$\mathrm{P} = \mathrm{Rs}\ 64,000$$

$$\mathrm{R} = 10\%\ \mathrm{p.a.}$$

$$\mathrm{n} = 1.5\ \mathrm{years}$$

Amount after n years :

$$\mathrm{A} = \mathrm{P}\left(1 + \frac{\mathrm{R}}{200}\right)^{2\mathrm{n}}$$

$$= 64,000\left(1 + \frac{10}{200}\right)^{3}$$

$$= 64,000(1.05)^{3}$$

$$= \mathrm{Rs}\ 74,088$$

Now,

$$\mathrm{CI} = \mathrm{A} - \mathrm{P}$$

$$= \mathrm{Rs}\ 74,088 - \mathrm{Rs}\ 64,000$$

$$= \mathrm{Rs}\ 10,088$$

Compound Interest Ex 14.1 Q8

Answer :

$\text{SI for Mewa Lal} = \frac{\text{PRT}}{100}$

$= \frac{20{,}000 \times 18 \times 2}{100}$

$= \text{Rs } 7{,}200$

Thus, he has to pay Rs $7{,}200$ as interest after borrowing.

$\text{CI for Mewa Lal} = \text{A} - \text{P}$

$= 20{,}000\left(1 + \frac{18}{100}\right)^2 - 20{,}000$

$= 20{,}000(1.18)^2 - 20{,}000$

$= 27{,}848 - 20{,}000$

$= \text{Rs } 7{,}848$

He gained Rs $7{,}848$ as interest after lending.

$\text{His gain in the whole transaction} = \text{Rs } 7{,}848 - \text{Rs } 7{,}200$

$= \text{Rs } 648$

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