Percentage Ex 12.2 Q19

Answer :

It is given that the value of the machine depreciates by 5% every year.
Present value of the machine $=$ Rs 100000
$\therefore$ For the first year, 5% of $100000 = \frac{5}{100} \times 100000$
$=$ Rs 5000
$\therefore$ Value of the machine after one year $= 100000 - 5000 =$ Rs 95000
Value of the machine in the second year $=$ Rs 95000
$\therefore$ 5% of $95000 = \frac{5}{100} \times 95000$
$=$ Rs 4750
$\therefore$ Value of the machine after 2 years $= 95000 - 4750 =$ Rs 90250
$\therefore$ After two years, the value of the machine will be Rs $90,250$.

Percentage Ex 12.2 Q20

Answer :

Present population $= 60000$
It increases by 10% annually.
$\therefore$ Increase in the population in the first year $= 10\%$ of $60000 = \frac{10}{100} \times 60000$
$= 6000$
$\therefore$ Population after 1 year $= 60000 + 6000 = 66000$
Increase in the population in the second year, 10% of $66000 = \frac{10}{100} \times 66000$
$= 6600$
Thus, population after 2 years $= 66000 + 6600 = 72600$

Percentage Ex 12.2 Q21

Answer :

Let the population of the town one year ago $= x$
Now, it is given that population of the town increases by 10% annually.
Present population $= x + 10\%$ of x
$= x + \frac{10}{100} \times x$
$= x + \frac{x}{10}$
$= \frac{11x}{10}$
But present population of the town $= 22000$
So, $\frac{11x}{10} = 22000$
$\Rightarrow 11x = 220000$
$\Rightarrow x = \frac{220000}{11}$
$\Rightarrow x = 20000$
So, population of the town 1 year ago $= 20000$

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