Name: Compound Interest Applications

Chapter: Comparing Quantities using Proportion

Grade: SSC Grade VIII

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- 1. The population of a city is 50000. If the rate of increase in population is 2.00% per annum, what is the population after 1 year(s)?
  - (i) 50990 (ii) 51000 (iii) 50980 (iv) 51020 (v) 51010
- The population of a city is 30000. If the rate of decrease in population is 6.00% per annum, what is the population after 5 year(s)?
  - (i) 22007 (ii) 21997 (iii) 22037 (iv) 22027 (v) 22017
- The present value of a machine is ₹4000.00. Suppose it depreciates at the rate of 3.00% per annum, what is the value of the machine after 3 year(s)?
  - (i) ₹3649.69 (ii) ₹3651.69 (iii) ₹3652.69 (iv) ₹3648.69 (v) ₹3650.69
- The present value of a machine is ₹8000.00. Suppose it depreciates at the rate of 10.00% per annum, what was the value of the machine 5 year(s) ago?
  - (i) ₹13547.07 (ii) ₹13549.07 (iii) ₹13550.07 (iv) ₹13548.07 (v) ₹13546.07
- 5. Let the present value of a machine be P. If it depreciates at the rate of r% per annum, the value of the machine after n years is

(i) 
$$P[1-\frac{r}{100}]^n$$
 (ii)  $\frac{P}{[1-\frac{r}{100}]^n}$  (iii)  $P[1-\frac{100}{r}]^n$  (iv)  $\frac{P}{[1-\frac{100}{r}]^n}$ 

6. Let the present value of a machine be P. If it depreciates at the rate of r% per annum, the value of the machine n years ago is

(i) 
$$\frac{P}{\left[1-\frac{r}{100}\right]^n}$$
 (ii)  $P\left[1-\frac{r}{100}\right]^n$  (iii)  $\frac{P}{\left[1-\frac{100}{r}\right]^n}$  (iv)  $P\left[1-\frac{100}{r}\right]^n$ 

Assignment Key						
1) (ii)	2) (v)	3) (v)	4) (iv)	5) (i)	6) (i)	

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