EduSahara™ Learning Center Assignment

Grade : Class VIII, SSC
Chapter : Comparing Quantities using Proportion
Name : Compound Interest Applications
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1. The population of a city is 40000. If the rate of increase in population is 3.00% per annum, what is the population after 4 years?

   (i) 45010 (ii) 45020 (iii) 45030

   (iv) 45000 (v) 45040

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2. The population of a city is 20000. If the rate of decrease in population is 5.00% per annum, what is the popoulation after 2 years?

   (i) 18040 (ii) 18050 (iii) 18070

   (iv) 18060 (v) 18030

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3. The present value of a machine is ₹7000.00. Suppose it depreciates at the rate of 8.00% per annum, what is the value of the machine after 1 years?

   (i) ₹6442.00 (ii) ₹6441.00 (iii) ₹6439.00

   (iv) ₹6440.00 (v) ₹6438.00

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4. The present value of a machine is ₹7000.00. Suppose it depreciates at the rate of 10.00% per annum, what was the value of the machine 4 years ago?

   (i) ₹10671.11 (ii) ₹10668.11 (iii) ₹10670.11

   (iv) ₹10669.11 (v) ₹10667.11

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

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

$[1 - \frac{r}{100}]^n$ 100 r $[1 - \frac{100}{r}]^n$

Assignment Key

1) (ii)
2) (ii)
3) (iv)
4) (iv)
5) (iv)
6) (i)