

Worksheet(BASIC)

Choose the correct option (1 mark each)

1) A sum is taken for 1 year at 16 % per annum. If the interest is charged after every three months, then the rate will be

(a) 5.25% quarterly (b) 4% quarterly (c) 8% quarterly (d) 3% quarterly

2) If Rs 1000 amount to Rs 1331 at 10% per annum compounded annually in

(a) 2 years (b) 3 years (c) 4 years (d) 1 year

3) Rs 8000 invested at compounded interest gives Rs 1261 as interest after 3 years.

The rate of interest per annum is (a) 25% (b) 17.5% (c) 10% (d) 5%

Fill in the blanks (1 mark each)

4) If the interest paid quarterly then in the formula $A=P(1+\frac{r}{100})^n$. We take ____ for n.

5) The relative decrease in the value of an item over a period of time is called ____.

6) _____ is calculated on the amount of the previous year.

7) There are _____ quarters in $2\frac{1}{2}$ years.

Answer the following (2 marks each)

8) What amount of money should Mohan invest in a bank in order to get Rs 1323 in 2 years at 5% compounded annually ?

9) Rs 8000 became Rs 9261 in a certain interval of time at the rate of 5% per annum compound interest. Find the time period.

Short Answer type question-I (2 marks each)

10) Find the compound interest on Rs 6400 for 2 years at $5\frac{1}{2}$ % per annum.

11) At what rate percent per annum compounded annually will a sum of Rs 1000 amount to Rs 1331 in 3 years ?

Short Answer type questions-II (3 marks each)

12) In how many years will Rs 31250 amount to Rs 36450 at the rate of 8% per annum compounded annually ?

13) Find the compound interest on Rs 15,625 at 16% per annum for 9 months when compounded quarterly.

14) At what rate percent will a sum of Rs 640 be compounded to Rs 774.40 in two years?

15) The value of a car costing Rs 1,45,000 depreciates at the rate of 20% per annum. What will be its total depreciation after 3 years ?

Long Answer type questions (1x4=4)

16). Jaydeev borrows Rs 16,00,000 from a bank for house construction at $12\frac{1}{2}\%$ per annum. Find the amount he has to pay after 1 year if the interest calculated half-yearly.

Worksheet(STANDARD)

Choose the correct option.(1 mark each)

- 1) I invested Rs. 6000 at 12% per annum compounded half-yearly . After 6 months I will get (a) 6360 (b) 6200 (c) 6300 (d)6260
- 2) If the amount is $2\frac{1}{4}$ times the sum after 2 years at compound interest, the rate of interest per annum is : (a) 25% (b) 30% (c) 40% (d) 50%
- 3) What is the difference between the compound interest and simple interest on Rs 8,000 at 15% per annum for 2 years ?
(a) Rs 280 (b) Rs 100 (c) Rs 180 (d) No difference
- 4) A sum of money at compound interest amounts to three times of itself in three years. In how many years will it be nine times of itself ?
(a) 6 years (b) 5 years (c) 9 years (d) 17 years

Fill in the blanks(1 mark each)

- 5) 'A' and 'B' provide loan for 2 years at 7% per annum. A lends at simple interest and B at compound interest. Who earns more interest ? _____
- 6) The time in which Rs 1800 amount to Rs 2178 at 10% per annum, compounded is ____
- 7) When the interest is compounded half-yearly, the given time will be ____ and the rate will be _____.

Answer the following.(2 marks each)

- 8) The population of a village 3 years ago was 625. It decreased every year at the rate of 4 % per annum. Find its present population.
- 9) An amount of Rs 'X' at compound interest at 20% per annum for 3 years becomes 'Y'. What is Y: X ?
- 10) A washing machine was bought at a price of Rs 14,000. It's value depreciates 8% per annum . Find it's value after one year.

- 11) Find the amount and compound interest on a sum of Rs 8,000 at 5% per annum for 3 years compounded annually.
- 12) Compute the compound interest on Rs 5,000 for $1\frac{1}{2}$ years at 16% per annum compounded half-yearly.
- 13) In what time will a sum of Rs 3,750 at 20% per annum compounded annually amount to Rs 6,480?

Short Answer type Question;-I (3 marks each)

- 14) In how many years will a sum of Rs 800 at 10% per annum compound interest compounded semi-annually?
- 15) Depreciation applicable to an equipment is 20%. By how much percent will the value of the equipment 3 years from now be less than the present value ?
- 16) A certain sum amounts to Rs 2970.25 in two years at 9% per annum compounded annually. Find the sum.

Short Answer Type Question:-II (3 marks each)

- 17) The compound interest on a sum for two years is Rs 832 and the simple interest on the same sum at the same rate for the same period is Rs 800. What is the rate of interest ?
- 18) A merchant starts with a certain capital and gains annually at the rate of 25%. At the end of 3 years his capital is worth Rs 10,000. What was his original capital ?

Long Answer Type Question(4 marks each)

- 19) The difference between the compound interest and the simple interest on a certain sum of money at 15 % per annum for 3 years is Rs 283.50 . Find the sum.
- 20) Raghu invested Rs 40,000 in a business . In the first year he incurred a loss of 10%. During the second year he earned a profit of 5% which in the third year rose to 20%. Calculate his profit for the entire period.

Worksheet (HOTS)

- 1) The simple interest on a certain sum of money for 2 years at $5\frac{1}{2}\%$ is Rs. 6600. What will be the compound interest on that sum at the same rate for the same time period?
- 2) On what sum will be compound interest at $7\frac{1}{2}\%$ per annum for 3 years compounded annually is Rs. 3101.40?
- 3) At what rate percent per annum will Rs. 32000 yield a compound interest of Rs. 5044 in 9 months interest being compounded quarterly?
- 4) A sum of money at compound interest (compounded annually) doubles itself in 4 years. In how many years will it amount to eight times of itself?
- 5) The difference between compound interest and simple interest at the same rate on Rs. 5000 for 2 years is 72. What is the rate of interest per annum?
- 6) Amit borrowed Rs.40960 from a bank to start a playschool. If the bank charge $12\frac{1}{2}\%$ per annum compounded half-yearly, what amount will he have to pay after $1\frac{1}{2}$ years ?
- 7) The simple interest on a certain sum of money for 3 years at 8% per annum is half of the compound interest on Rs.4000 for 2 years at 10% per annum. What is sum placed on simple interest?
- 8) Ravi took a loan of Rs.32000 for 1 year at 20% per annum compounded quarterly. How much he has to pay after 1 year?
- 9) Find the compound interest on Rs.24000 at 15% per annum for $2\frac{1}{3}$ years?
- 10) A sum of money at compound interest amount to 3 times of itself in 3 years. In how many years will it be nine times of itself?
- 11) Two friends A and B jointly lent out Rs.81600 at 4% compound interest. After 2 years A gets the same amount as B gets after 3 years. Find the investment was made by B .
- 12) The difference in compound interest and simple interest on certain sum of money at $6\frac{2}{3}\%$ per annum for 3 years is Rs.46. Determine the sum.
- 13) The present population of a city is 9261000. If it has been increasing at the rate of 5% per annum, find its population 3 years ago.
- 14) Ashish opened a book shop with an initial investment of Rs.32000. In the first year, he incurred a loss of 5%. However, during the second year he earned a profit of 10% which in the third year rise to $12\frac{1}{3}\%$. Calculate his net profit for the entire period of 3 years.

15) The half life of uranium -233 is 160000gms, i.e. uranium-233 decays at a constant rate in such ways that it reduces to 50% in 160000years. In how many years will it reduce to 25%?