

## **CHAPTER : SI /CI**

### **Topics to be covered with examples:**

- Concept of Simple interest
- Concept of Compound interest
- Difference between Simple interest and compound interest
- Formula and its explanation to calculate SI and CI
- Relation between Amount, Principal and interest
- Concept of Compound interest payable frequency
- Word problems interpretation and solving.
- Problems including sum becomes double/triple/quadruple...
- Concept of EMI and method to find EMI.

1. The simple interest on a certain sum for 3 years at 14% per annum is Rs.235.20. The sum is\_\_\_\_\_.

2. If Rs.64 amounts to Rs.83.20 in 2 years, what will Rs.86 amount to in 4 years at the same rate per cent per annum?

3. A sum of money amounts to Rs.850 in 3 years and Rs.925 in 4 years. What is the sum?

4. A sum amounts to Rs.702 in 2 years and Rs.783 in 3 years. The rate percent is\_\_\_\_\_.

5. A money-lender finds that due to a fall in the rate of interest from 13% to  $12\frac{1}{2}\%$ , his yearly income diminishes by Rs.104. What is his capital?

6. If the amount of Rs.360 in 3 years is Rs.511.20, what will be the amount of Rs.700 in 5 years?

7 A sum of Rs.2540 is lent out in two parts, one at 12% and the other at  $12\frac{1}{2}\%$ . If the total annual is Rs.312.42 the money lent at 12% is\_\_\_\_\_.

8. A sum of Rs.2600 is lent out in two parts in such a way that the interest on one part at 10% for 5 years is equal to that on the other part at 9% for 6 years. The sum lent out at 10% is \_\_\_\_\_.

9. The simple interest on a sum of money is  $\frac{1}{16}$  of the principal and the number of years is equal to the rate percent per annum. The rate percent annum is\_\_\_\_\_.

10. The simple interest on a certain sum at a certain rate is  $\frac{9}{16}$  of the sum. If the number representing rate percent and time in years be equal, then the time is\_\_\_\_\_.

## B. Compound Interest

11. Find the amounts of Rs.6400 in 1 year 6 months at 5 p.c. compound interest, interest being calculated half-yearly.

12. Find the compound interest on Rs.10000 in 9 months at 4 p.c., interest payable quarterly.

13. Find the difference between the simple and the compound interest on Rs.1250 for at 4 p.c. per annum.

14. I give a certain person Rs.8000 at simple interest for 3 years at  $7\frac{1}{2}$  p.c. How much more should I have gained had I given it at compound interest?

15. At what rate percent compound interest does a sum of become fourfold in 2 years?

16. If the difference between the simple interest and the compound interest on a certain sum of money for 3 years at 5 percent per annum is Rs.122, find the sum.

17. The simple interest on a certain sum of money for 4 years at 4 percent annum exceeds the compound interest on the same sum for 3 years at 5 percent. Per annum by Rs.57. find the sum.

18. A sum of money at compound interest amounts in two years to Rs.2809, and in three years to Rs.2977.54. Find the rate of interest and the original sum.

19. A sum is invested at compound interest payable annually. The interest in two successive years was Rs.225 and Rs.236.25. Find the rate of interest and the principal.