# Arithmetic - 03

Career Launcher

QA

CEX-Q-0207/25

## Topics Covered

- SI and CI; Instalments

**Number of Questions : 20**

1. Narayan and Murthy invested some money at 6% and 7% per annum respectively of SI. At the end of 2 years they found that together they received Rs. 354 as interest. One-fourth of Narayan's initial investment is equal to one-fifth of the money invested by Murthy. Find the total money invested.
(1) Rs. 2,746.5 (2) Rs. 2,600
(3) Rs. 2,700 (4) Rs. 2,880

2. Bhawna lent part of Rs.10,000 to Myra, one of her friends at 8% SI for 4 years. She invested the remaining amount at 12% SI. Total income from interest after 4 years was Rs. 3,800. What was sum (in Rs.) lent to Myra?

3. Veeru invested Rs 10000 at 5% simple annual interest, and exactly after two years, Joy invested Rs 8000 at 10% simple annual interest. How many years after Veeru's investment, will their balances, i.e., principal plus accumulated interest, be equal?

4. A person invested a total amount of Rs. 15 lakh. A part of it was invested in a fixed deposit earning 6% annual interest, and the remaining amount was invested in two other deposits in the ratio 2 : 1, earning annual interest at the rates of 4% and 3%, respectively. If the total annual interest income at the end of the first year is Rs 76000 then the amount (in Rs lakh) invested in the fixed deposit was

5. Alex invested his savings in two parts. The simple interest earned on the first part at 15% per annum for 4 years is the same as the simple interest earned on the second part at 12% per annum for 3 years. Then, the percentage of his savings invested in the first part is
(1) 62.5% (2) 40%
(3) 60% (4) 37.5%

6. An amount of Rs. 7,000 was divided into two equal parts. The first part was deposited in a bank at simple interest rate of 8% per annum for three years. The second part was deposited in another bank at the rate of 10% per annum, compounded annualy, for 2 years. What is the difference in the interests earned from the two amounts?

7. A sum of money compounded annually becomes Rs. 625 in 2 years and Rs. 675 in 3 years. The rate of interest per annum is
(1) 7% (2) 10%
(3) 5% (4) 8%

8. Difference between compound interest and simple interest for 2 years on a sum of money is Rs. 160. If total simple interest is Rs. 2,880, then find rate of interest.
(1) $5\frac{5}{9}\%$ (2) $12\frac{1}{2}\%$
(3) $11\frac{1}{9}\%$ (4) 9%

9. A certain amount of money compounded annually at r% becomes Rs. 1,440 and Rs. 1,728 after 2 and 3 years respectively. Find the value of r.
(1) 5% (2) 10%
(3) 15% (4) 20%

10. If the difference between the CI and the SI at the end of 2 years is Rs. 100, what is the principal? Rate is 5% per annum in both the cases. (Assume same principal for both the cases.)
(1) Rs. 50,000 (2) Rs. 40,000
(3) Rs. 10,000 (4) None of these

11. For the same principal amount, the compound interest for two years at 5% per annum exceeds the simple interest for three years at 3% per annum by Rs 1125. Then the principal amount in rupees is

12. Amal invests Rs 12000 at 8% interest, compounded annually, and Rs 10000 at 6% interest, compounded semi-annually, both investments being for one year. Bimal invests his money at 7.5% simple interest for one year. If Amal and Bimal get the same amount of interest, then the amount, in Rupees, invested by Bimal is

13. Raj invested Rs. 10000 in a fund. At the end of first year, he incurred a loss but his balance was more than Rs. 5000. This balance, when invested for another year, grew and the percentage of growth in the second year was five times the percentage of loss in the first year. If the gain of Raj from the initial investment over the two year period is 35%, then the percentage of loss in the first year is
(1) 10 (2) 5
(3) 70 (4) 15

14. Bank A offers 6% interest rate per annum compounded half yearly. Bank B and Bank C offer simple interest but the annual interest rate offered by Bank C is twice that of Bank B. Raju invests a certain amount in Bank B for a certain period and Rupa invests Rs. 10,000 in Bank C for twice that period. The interest that would accrue to Raju during that period is equal to the interest that would have accrued had he invested the same amount in Bank A for one year. The interest accrued, in INR, to Rupa is
(1) 1436 (2) 2346
(3) 2436 (4) 3436

15. Anil invests some money at a fixed rate of interest, compounded annually. If the interests accrued during the second and third year are Rs. 806.25 and Rs. 866.72, respectively, the interest accrued, in INR, during the fourth year is nearest to
(1) 931.72 (2) 926.84
(3) 929.48 (4) 934.65

16. Mrs.Gupta is planning for higher education expenses of her two sons aged 15 and 11. She plans to divide Rs. 20 lakhs in two equal parts and invest in two different plans such that her sons may have access to Rs. 25 lakhs each when they reach the age of 21. She is looking for plans that will give her a simple interest per annum. The rates of interest of the plans for her younger son and her elder son should be
(1) 8% and 12% respectively
(2) 10% and 15% respectively
(3) 15% and 22.5% respectively
(4) 15% and 25% respectively

17. John borrowed Rs. 2,10,000 from a bank at an interest rate of 10% per annum, compounded annually. The loan was repaid in two equal instalments, the first after one year and the second after another year. The first instalment was interest of one year plus part of the principal amount, while the second was the rest of the principal amount plus due interest thereon. Then each instalment, in Rs., is

18. A cellphone is available for Rs. 39000 cash or Rs. 6000 cash down payment followed by 4 equal monthly installments at 24% p.a. compound interest, compounded monthly. Find the value of each installment.
(1) 12000 (2) 15320
(3) 9640 (4) None

19. Suresh borrows Rs. 8,000 at 5% interest, on reducing balance, at the start of the year. If he repays Rs. 1,400 at the end of each year, find the amount of loan outstanding, in Rs. at the beginning of the third year.
(1) 3162.75 (2) 4125.00
(3) 5950.00 (4) 6100.00

20. A person borrowed some money at 16% p.a. compound interest, compounded quarterly. He paid Rs. 17,576 every time to pay back whole amount after 3 months, 6 months and 9 months. Find the initial amount (in Rs.).