1. Find the compound amount and compound interest of ₹ 5000 invested for 4 years at $7 \%$ if the interest is compounded (i) annually, (ii) semi annually
2. Find the compound amount and compound interest of ₹ 80000 invested for 5 years at $10 \%$ if the interest is compounded (i) quarterly, (ii) semi annually
3. Find the compound amount and compound interest of $₹ 60000$ invested for 6 years at $9 \%$ if the interest is compounded (i) annually, (ii) quarterly
4. Mr. Kishore lent ₹ 4000 to Mr. Amit and ₹ 6000 to Mr. Sujal for a period of 10 years and received total of ₹ 3500 as S.I. Find (i) rate of interest, (ii) S.I. from Mr. Amit and Mr. Sujal
5. Find the rate of interest if a person depositing Rs. 1000 annually for 2 years receives Rs. 2070.
6. Mr. Akash lent Rs. 5000 to Mr. Prashant and Rs. 4000 to Mr. Sagar for 5 years and received total simple interest of Rs. 4950. Find (i) the rate of interest and (ii) simple interest of each.
7. Find the principal for which the SI for 8 years at $7.5 \%$ is 825 less than the SI for $6 \frac{1}{2}$ years at $10.5 \%$.
8. Miss Pankaj Kansra lent Rs. 2560 to Mr. Abhishek and Rs. 3650 to Mr. Ashwin at $6 \%$ rate of interest. After how many years should he receive a total interest of Rs. 3726 ?
9. Mrs. Prabhu lent a total of Rs. 48,000 to Mr. Diwakar at $9.5 \%$ for 5 years and to Mr. Ratnakar at $9 \%$ for 7 years. If she receives a total interest of Rs. 25,590 find the amount she lent to both.
10. Mr. Santosh wants to invest some amount for 4 years in a bank. Bank $X$ offers $8 \%$ interest if compounded half yearly while bank $Y$ offers $6 \%$ interest if compounded monthly. Which bank should Mr. Santosh select for better benefits?
11. Mr. Ashfaque Khan invested some amount in a bank giving $8.5 \%$ rate of interest for 5 years and some amount in another bank at 9\% for 4 years. Find the amounts invested in both the banks if his total investment was Rs. 75,000 and his total interest was Rs. 29,925
12. Mr. Akash lent Rs. 5000 to Mr. Prashant and Rs. 4000 to Mr. Sagar for 5 years and received total simple interest of Rs. 4950. Find (i) the rate of interest and (ii) simple interest of each.
13. Mr. Santosh invested certain principal for 5 years at $10 \%$ interest compounded yearly. If he received ₹72957.5 at the end of $5^{\text {th }}$ year, find the periodic payment he made.
14. Find the present value of an immediate annuity of Rs. 1600 for 2 years at $7 \%$ p.a. compounded half yearly.

Topic: Interest \& Annuity
15. Mr. Paradkar is interested in saving a certain sum which will amount to Rs. $3,50,000$ in 5 years. If the rate of interest is $12 \%$ p.a., how much should he save yearly to achieve his target?
16. Mangesh borrowed a certain amount from Manish at a rate of $9 \%$ for 4 years. He paid Rs. 360 as simple interest to Manish. This amount he invested in a bank for 3 years at $11 \%$ rate of interest compounded quarterly. Find the compound interest Mangesh received from the bank after 3 years
17. What is the value of the annuity at the end of 5 years, if Rs. 1000 p.m. is deposited into an account earning interest $9 \%$ p.a. compounded monthly? What is the interest paid in this amount?
18. Find the future value of an immediate annuity after 6 years with the periodic payment of $₹ 15000$ at $5 \%$ p.a. if the period of payments is yearly.
19. What periodic payments Mr. Narayanan has to make if he has borrowed Rs. $1,00,000$ at $12 \%$ p.a. compounded annually for 12 years? [(1.12)12 = 3.896]
20. Find the sum invested and the accumulated amount for an ordinary annuity with periodic payment of Rs. 2500 , at the rate of interest of $9 \%$ p.a. for 2 years if the period of payment is (a) yearly, (b) halfyearly, (c) quarterly or (d) monthly.
21. Mr. Banerjee wants to accumulate Rs. 5, 00,000 at the end of 10 years from now. How much amount should he invest every year at the rate of interest of $9 \%$ p.a. compounded annually?
22. Find the periodic payment to be made so that Rs. 25000 gets accumulated at the end of 4 years at $6 \%$ p.a. compounded annually.
23. Dr. Wakankar, a dentist has started his own dispensary. He wants to install a machine chair which costs Rs. 3, 25,000. The machine chair is also available on monthly rent of Rs. 9000 at $9 \%$ p.a. for 3 years. Should Dr. Wakankar buy it in cash or rent it?
24. A sum of Rs. 50,000 is required to buy a new machine in a factory. What sinking fund should the factory accumulate at $8 \%$ p.a. compounded annually if the machine is to be replaced after 5 years?
25. Regency Co-op. Hsg. Society which has 50 members require Rs. $12,60,000$ at the end of 3 years from now for the society repairs. If the rate of compound interest is $10 \%$ p.a., how much fund the society should collect from every member to meet the necessary sum?
26. The present cost of a machine is Rs. 80,000 . Find the sinking fund the company has to generate so that it could buy a new machine after 10 years, whose value then would be $25 \%$ more than of today's price. The rate of compound interest being $12 \%$ p.a. compounded annually.
27. Mr. Lalwaney is of 40 years now and wants to create a fund of Rs. $15,00,000$ when he is 60 . What sum of money should he save annually so that at $13 \%$ p.a. he would achieve his target?
28. Mr. Shyam Rane has borrowed a sum of Rs. 100000 from a bank at $12 \%$ p.a. and is due to return it back in 5 monthly installments. If he will pay the EMI ₹ 20604 then construct the amortization table of repayment. (for first 3 installments)
29. Mr. Chintan has borrowed a sum of ₹ 60,000 from Mr. Shailesh at $7.2 \%$ p.a. and is due to return it back in 3 monthly installments. If he will pay the EMI ₹ 20241 then construct the amortization table of repayment.
30. Mrs. Gaikwad has taken a loan of $₹ 1,20,000$ from a bank at $12 \%$ p.a. If the loan has to be returned in 4 years, find the EMI, Mrs. Gaikwad has to pay.

