

SIMPLE & COMPOUND INTEREST

Q1. Kunal borrows Rs.24000 from a bank at 12% simple interest. He repays 20% of the principal at the end of every year. What is the simple interest that has accrued at the end of 4 years?

- (1) Rs.8120 (2) Rs.8106 (3) Rs.8408 (4) Rs.8064

Q2. Pradeep borrows Rs.10000 at 20% for 5 years at simple interest. But, from the 4th year onwards, on the entire amount due at the end of three years, the lender begins to charge 20% interest compounded annually. What is the amount repaid by Pradeep after 5 years from the beginning?

- (1) Rs.15342 (2) Rs.18432 (3) Rs.17324 (4) Rs.23040

Q3. A man took a loan of Rs.100000 at 8% per annum compound interest. He repays Rs.10000 per annum. What is the amount due from him at the beginning of the 3rd year?

- (1) Rs.91917 (2) Rs.81917 (3) Rs.93970 (4) Rs.95840

Q4. Given that a principal amount to Rs.10080 at 10% simple interest after 2 years what is compound interest for 2 years on this principal at the same rate?

- (1) Rs.10164 (2) Rs.1764 (3) Rs.1640 (4) Rs.3764

Q5. The difference between the amounts to be repaid by a man at the end of 2 years, at 20% per annum compounded annually and half yearly, is Rs.1084.5. What is the principal?

- (1) Rs.45000 (2) Rs.50000 (3) Rs.51500 (4) Rs.52500

Q6. Suhel borrowed a certain amount at 28% compound interest and repays it in one year. Binod borrows a certain amount at a certain interest rate under simple interest and returns it after 4 years. If the amounts repaid by Suhel and Binod are the sum of their principals borrowed is Rs.54000, what is Binod's interest rate?

- (1) 10% (2) 12% (3) 15% (4) 18%

Q7. What is the principal, if after 5 years at 11% p.a. simple interest, it amounts to Rs.18600?

- (1) Rs.12000 (2) Rs.8000 (3) Rs.15000 (4) Rs.11000

Q8. A sum of money invested at simple interest amounts to Rs.2832 at the end of 3 years and Rs.3120 at the end of 5 years. Find the principal.

- (1) Rs.2400 (2) Rs.3000 (3) Rs.3500 (4) Rs.4200

Q9. The compound interest and the simple interest on a certain sum for two years are Rs.1230 and Rs.1200 respectively. The rate of interest is same for both compound interest and simple interest. What is the principal?

- (1) Rs.10000 (2) Rs.12000 (3) Rs.12500 (4) Rs.16000

Q10. The compound interest on a certain sum for the third and the fourth years is Rs.1815 and Rs.1996.5 respectively. What is the rate of interest?

- (1) 5% (2) 8% (3) 10% (4) 12%

Q11. Srikanth buys a car worth Rs.525000 as down payment and agrees to pay the remaining amount in instalment. What is the approximate yearly instalment amount to be paid by him, if at 12% p.a. compounded annually, he repays the remaining amount in three more years? Given that $(1/1.12)^3 = 0.71$

- (1) Rs.160000 (2) Rs.165000 (3) Rs.180000 (4) Rs.183000

Q12. What annual instalment will discharge a debt of Rs.1450 due after 5 years at 8% p.a simple interest?

- (1) Rs.320 (2) Rs.450 (3) Rs.250 (4) Rs.400

Q13. Sourabh borrows Rs.2500000 at 12% compound interest from a bank and invests in shares. The investment gives him a return of 20% per annum and he repays Rs.500000 at the end of first year. How much does he make for himself after paying all the outstanding amount at the end of the second year?

- (1) Rs.424000 (2) Rs.356241.50 (3) Rs.525000 (4) Rs.484241.80

Q14. Puneet borrows Rs.32000 from Jalpesh at 10% simple interest. He lends it to Govind at 20% compound interest. How much more would Puneet have gained, if Govind had returned the amount in 3 years instead of 2 years?

- (1) Rs.5016 (2) Rs.7016 (3) Rs.6016 (4) Rs.4016

Q15. A sum of Rs.3000 has been borrowed by Akshay who agrees to repay the amount in three equal annual instalments. Initially the interest rate in the scheme is 10% p.a. compounded annually; but after two instalments have been paid, the interest rate is increased to 15% p.a., effective from that year. What is the value of the last instalment? (given $(100/110)^3 = 0.75$)

- (1) Rs.1651 (2) Rs.1575 (3) Rs.1277 (4) Rs.1471

Q16. The difference between the interest under compound interest being compounded annually and simple interest, for two years, for the same sum and at the same of rate of interest is Rs.112.5. Find the sum if the rate of interest is 15%?

- (1) Rs.3500 (2) Rs.5000 (3) Rs.7500 (4) Rs.10000

Q17. Aman invests Rs.34000, part of it in scheme A at 20% p.a. and the rest of it in scheme B at 60% p.a., both at compound interest. If, after two years, the amount in scheme A is 9 times that in scheme B, how much was invested in scheme B?

- (1) Rs.16000 (2) Rs.17000 (3) Rs.2000 (4) Rs.1000

Q18. The difference between the compound and simple interest on a sum for 3 years at 20% p.a. is Rs.3200. Find the sum.

- (1) Rs.5000 (2) Rs.10000 (3) Rs.15000 (4) Rs.25000

Q19. What is the present worth of Rs.20000 due after 3 years at 10% p.a. compound interest? (given $(1/1.1) = 0.90$)

- (1) Rs.13970 (2) Rs.14120 (3) Rs.14580 (4) Rs.15730

Q20. In how many years will a sum of Rs.1875 amount to Rs.2187 at 8% p.a. compound interest?

- (1) 1 (2) 2 (3) 3 (4) 4

Q21. A sum when lent at a certain rate compounded annually amounts to Rs.1200 in 2 years and when lent at twice the previous rate amounts to Rs.1323 in the same time. What is the rate at which it was initially lent?

- (1) 4% (2) $4\frac{3}{7}\%$ (3) $5\frac{5}{19}\%$ (4) $6\frac{1}{4}\%$

Q22. Somesh saves Rs.20000 at the beginning of each year in a savings bank account that pays 5% p.a. interest being compounded annually. If, at the beginning of the third year, interested of depositing Rs.20000, he withdraws Rs.10000, how much would be the total savings of the man at the end of three years?

- (1) Rs.28124.24 (2) Rs.29324.20 (3) Rs.31349.75 (4) Rs.34702.50

Q23. A certain sum becomes twice itself in exactly five years at $r\%$ p.a. simple interest. In which years does the sum amount to twice itself, under $r\%$ compound interest?

- (1) 2 (2) 3 (3) 4 (4) Cannot be determined

Q24. Praveen invested a certain amount in a six-year fixed deposit scheme, interest being compounded annually. The interests accrued on this deposit for the 4th and 5th years, respectively, are Rs.1331 and Rs.1464.1. If George deposited Rs.12000 in the same scheme, how much interest would be accrued on this deposit for the first two years?

- (1) Rs.1320 (2) Rs.1452 (3) Rs.2520 (4) Rs.1440

Q25. If a sum of Rs.12000 is lent at 5% p.a. compound interest, what is the interest for the third year?

- (1) Rs.441 (2) Rs.661.50 (3) Rs.531.20 (4) R.742.75

Q26. Akash deposits a sum P in a bank at r% compound interest. The amount becomes 27P after 3 years by compounding annually. Instead, if the bank had compounded half yearly, what is the additional amount Akash would have received in terms of P?

- (1) 54P (2) 37P (3) 18P (4) 5P

Q27. Pramod borrows a sum at compound interest and it amounts to Rs.138240 at the end of 3 years and to Rs.199065.60 at the end of 5 years. What is the sum borrowed?

- (1) Rs.76000 (2) Rs.80000 (3) Rs.90000 (4) Rs.96000

Q28. Kishore takes a loan of Rs.8000 at simple interest. After 4 years he takes an additional loan of Rs.14440. From that point, compound interest at 10% per annum is calculated on the total amount repayable on the first loan as well as the second loan. He repays a total of Rs.30250 after 2 more years to clear the entire loan amount. What is the rate of simple interest?

- (1) 6% (2) 9% (3) 7% (4) 8%

Q29. Sumit takes a loan from a financier at 100% p.a. interest. When he was repaying it after 3 years, he had to pay Rs.952000 more after 3 years; he had to pay Rs.952000 more because the loan was compounded every moment, instead of annually. What is the Principal amount? [Take $e = 2.71$ and $(2.71)^3 = 19.9$]

- (1) Rs.70000 (2) Rs.75000 (3) Rs.80000 (4) Rs.85000

Q30 . A person borrows Rs. 5000 for 2 years at 4 % p.a. simple interest. He immediately lends it to another person at $6 \frac{1}{2}$ % p.a, for 2 year. Find his gain in the transaction per year.

- (a) Rs 112.50 (b) Rs. 125 (c) RS 150 (d) Rs. 167.50

Q31. How much time will it take for an amount for Rs. 450 to yield Rs. 81 as interest at 4.5% per annum of simple interest?

- (a) 3.5year (b) 4year (c) 4.5 year (d) 5 year

Q32. A sum of Rs. 12,500 amounts to Rs. 15,500 in 4 years at the rate of simple interest, what is the rate of interest?

- (a) 3% (b) 4% (c) 5% (d) 6% (e) None of them

Q33. Reena took a loan of Rs 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?

- (a) 3.6 (b) 6 (c) 18 (d) cannot be determined (e) None of these

Q34. A man took a loan from a bank at the rate of 12% p.a., simple interest. After 3 years he had to pay Rs. 5400 interest only for the period. The principal amount borrowed by him was.

- (a) Rs. 2000 (b) Rs. 10, 000 (c) Rs. 15,000 (d) Rs. 20,000

Q35. What is the present worth of Rs. 132 due in 2 years at 5% simple interest per annum?

- (a) Rs. 112 (b) Rs. 118.80 (c) Rs. 120 (d) Rs. 122

Q36. A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum?

- (a) Rs.4462.50 (b) 8032.50 (c) Rs. 8900 (d) 8925
(e) None of these

Q37. Rs. 800 becomes Rs. 956 in 3 years at a certain rate of simple interest. If the rate of interest increased by 4%, what amount will Rs. 800 become in 3 years?

- (a) Rs. 1020.80 (b) Rs. 1025 (c) Rs. 1052 (d) Data inadequate (e) None of these

Q38. A certain amount earns simple interest of Rs. 1750 after 7 years. Had the interest been 2% more, much more interest would it have earned?

- (a) Rs. 35 (b) Rs. 245 (c) Rs. Cannot be determined (d) None of these

Q39. In how many years, Rs 150 will produce the same interest @ 8% as Rs. 800 produce in 3 years @ $4\frac{1}{2}\%$?

- (a) 6 (b) 8 (c) 9 (d) 12

Q40. A sum invested 5% simpler interest per annum grows to Rs. 504 in 4 years. The same amount at 10% simple interest per annum $2\frac{1}{2}$ years will grow to:

- (a) Rs. 420 (b) Rs. 450 (c) Rs. 525 (d) Rs. 550

Q41. What will be the ratio of simple interest earned by certain amount at the same rate of interest for 6 years and that for 9 years?

- (a) 1:3 (b) 1:4 (c) Data inadequate (d) None of these

Q42. nitin borrowed some money at the rate of 6% p.a for the first three years, 9% p.a. for the next five years and 13% p.a for the period beyond eight years. If the total interest paid by him at the end of eleven years is Rs. 8160, how much money did he borrow?

- (a) Rs. 8000 (b) Rs. 10,000 (c) Data inadequate (d) none of these

Q43. An automobile financier claims to be lending money at simple interest, but he includes the interest every six months for calculating the principal. If he charging an interest of 10%, the effective rate of interest becomes:

- (a) 10% (b) 10.25% (c) 10.5% (d) None of these

Q44. A sum money lent out at simple interest amounts to Rs. 720 after 2 years and to Rs. 1020 after a further period of 5 years. The sum is:

- (a) Rs. 500 (b) Rs. 600 (c) Rs. 700 (d) Rs. 710

Q45. A sum of money amount to Rs. 9800 after 5 years and Rs. 12005 after 8 years at the same rate of simple interest. The rate of interest per annum is:

- (a) 5% (b) 8% (c) 12% (d) 15%

Q46. At what rate percent of simple interest will a sum of money double itself in 12 years?

- (a) $8 \frac{1}{4} \%$ (b) $8 \frac{1}{3} \%$ (c) $8 \frac{1}{2}$ (d) $8 \frac{1}{2} \%$

Q47. At what rate percent per annum will the simple interest on a sum of money be $\frac{2}{5}$ of the amount in 10 years?

- (a) 4% (b) $5 \frac{2}{3} \%$ (c) 6% (d) 6 %

Q48. A sum of money becomes $\frac{7}{6}$ of itself in 3 years at a certain rate of simple interest. The rate per annum is:

- (a) $5 \frac{5}{9} \%$ (b) $6 \frac{5}{9} \%$ (c) 18 % (d) 25%

Q49. Simple interest on a certain amount is $\frac{9}{16}$ of the principal. If the numbers representing the rate of interest, in percent and time in years be equal, then time, for which the principal lent out, is:

- (a) $5 \frac{1}{2}$ years (b) $6 \frac{1}{2}$ years (c) 7 years (d) $7 \frac{1}{2}$ years