

# **SIMPLE INTEREST & COMPOUND INTEREST**

## SIMPLE INTEREST

If the interest on a sum borrowed for certain period is calculated uniformly, it is called **simple interest (SI)**. Simple interest is a quick method of calculating the interest charge on a loan.

**Principal:** The amount borrowed or invested.

**Loan period or duration:** Is the time that the principal amount is either borrowed or invested. It is usually given in years, but in some cases, it may be quoted in months or even days.

**Interest:** Is the extra money paid by the borrower to the owner (lender) as a form of compensation for the use of the money borrowed.

The statement "**rate of interest 10% per annum**" means that the interest for one year on a sum of **Rs.100** is **Rs.10**. If not stated explicitly, rate of interest is assumed to be for one year.

$$\text{SIMPLE INTEREST} = \frac{\text{PRINCIPAL} \times \text{RATE OF INTEREST} \times \text{TIME}}{100}$$

**Example:** Calculate the simple interest on Rs. 1000 at the rate of 5% per annum for a time period of 2 years.

**Solution:** Principal=1000

Rate of interest=5% p.a.

Time= 2 years

$$\text{SIMPLE INTEREST} = \frac{P \times R \times T}{100} = \frac{1000 \times 5 \times 2}{100} = \text{Rs.100}$$

$$\text{Simple Interest} = \left( \frac{P \times R \times T}{100} \right)$$

$$P = \left( \frac{100 \times \text{S.I.}}{R \times T} \right); R = \left( \frac{100 \times \text{S.I.}}{P \times T} \right) \text{ and } T = \left( \frac{100 \times \text{S.I.}}{P \times R} \right).$$

## COMPOUND INTEREST

**Compound Interest** is the interest calculated on a sum of money which includes principal and interest calculated for the previous year.

**Example:** Calculate the interest if compounded annually for an amount of Rs. 100 for a time period of 3 years at the rate of 10 % per annum.

**Solution:** Here, Principal =Rs. 100

Time Period=3 years

Rate of interest =10% per annum

compounding is regular addition of interest					
100	interest for 1st year	110	interest for 2nd year	121	interest for 3rd year
at 10% p.a. is 10		at 10% p.a. is 11		at 10% p.a. is 12.1	
				133.31	

Amount 110 is the principal for the 2nd year, amount 121 is the principal for the 3rd year, and amount 133.1 is the principal for the 4th year.

Under compound interest, Amount is found by the formula given below:

$$A = P\left(1 + \frac{R}{100}\right)^n$$

#### IMPORTANT POINTS :

Let Principal = P, Rate = R% per annum, Time = n years.

1. When interest is compound Annually:

$$\text{Amount} = P \left(1 + \frac{R}{100}\right)^n$$

2. When interest is compounded Half-yearly:

$$\text{Amount} = P \left[1 + \frac{(R/2)}{100}\right]^{2n}$$

3. When interest is compounded quarterly:

$$\text{Amount} = P \left[1 + \frac{(R/4)}{100}\right]^{4n}$$

#### FOUNDATION LEVEL OF QUESTIONS :

1. What is S.I. of Rs. 800 on 5% per annum for 3 years?

A. 120

B. 140

C. 210

D. 230

E. None of these

2. How many years will it take for amount of Rs. 600 to yield Rs. 120 as interest at 10% per annum of S.I.?  
A. 1 year      B. 3 year      C. 2 year      D. 4 year      E. None of these
3. A sum of Rs. 15000 amount gave Rs. 4500 as interest in 5 year. What is rate of interest?  
A. 3%      B. 4%      C. 5%      D. 6%      E. None of these
4. A sum of money becomes Rs. 1100 in 2 years and Rs. 1400 in 6 years at S.I. Find the rate percent.  
A. 7 17 19      B. 1 713      C. 2 43      D. 5 23      E. None of these
5. What would be the C.I. on Rs. 17500 at the rate of 12 p.c.p.a. after 2 years?  
A. Rs. 4442      B. Rs. 4452      C. Rs. 4462      D. Rs. 4482      E. None of these
6. What would be the C.I. obtained on an amount of Rs. 12000 at the rate of 9 p.c.p.a for 3 years?  
A. Rs. 3840      B. Rs. 3740.75      C. Rs. 3540      D. Rs. 3640      E. None of these
7. What would be the C.I. obtained on an amount of Rs. 4800 at the rate of 5 p.c.p.a for 3 years?  
A. Rs. 448.7      B. Rs. 817.8      C. Rs. 623.5      D. Rs. 756.6      E. None of these
8. What would be the C.I. obtained on an amount of 12500 at the rate of 12 p.c.p.a. after 2 years?  
A. Rs. 3180      B. Rs. 3360      C. Rs. 3540      D. Rs. 3720      E. None of these
9. The difference between simple and compound interest on sum of 10000 is 64 for 2 years. Find the rate of interest.  
A. 8      B. 64      C. 4      D. 2      E. None of these
10. The difference between simple and compound interest compounded annually on a certain sum of money for 2 years at 4% per annum is Rs. 1. The sum (in Rs.) is:  
A. 625      B. 630      C. 640      D. 650      E. None of these
11. Find the compound interest on Rs. 12500 at 8% per annum for 9 months compounded quarterly.  
A. Rs. 1020      B. Rs. 1428      C. Rs. 510      D. Rs. 550      E. None of these
12. Find the compound Interest on Rs. 32000 at 20% per annum for 1 year, compounded half yearly.  
A. Rs. 6320      B. Rs. 6720      C. Rs. 6400      D. Rs. 6500      E. None of these
13. The difference between C.I. & S.I. on Rs. 700 in 2 years at 5% per annum is:  
A. Rs. 10      B. Rs. 5      C. Rs. 1      D. Rs. 2.5      E. Rs. 1.75
14. The difference between the compound and simple interest on a sum of money for 2 years at 6 1 4 % per annum is Rs. 10. The sum is  
A. Rs. 2000      B. Rs. 2200      C. Rs. 2560      D. Rs. 2600      E. None of these
15. If a sum of money doubles itself in 8 years at S.I. then the rate of interest per annum is:  
A. Rs. 10.5      B. Rs. 12.5      C. Rs. 11.5      D. Rs. 13.5      E. None of these
16. What sum lent at 10% per year on S.I. will amount to Rs. 450 in 2 years?  
A. Rs. 350      B. Rs. 375      C. Rs. 240      D. Rs. 280      E. None of these
17. Nutan invest Rs. 22400 on S.I. at rate 12 p.c.p.a. How much amount she will get after seven year.  
A. 41,116      B. 41,216      C. 42,116      D. 42,216      E. None of these
18. What time taken by sum of Rs. 7000 to became 10500 at the rate of 5% per annum?  
A. 8 years      B. 10 years      C. 5 years      D. 15 years      E. None of these
19. A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9% p.a. in 5 years. What is the sum?  
A. Rs. 4462.50      B. Rs. 8032.50      C. Rs. 8900      D. Rs. 8925      E. None of these
20. If the difference between the C.I. compounded half yearly and simple interest on a sum at 10% per annum for one year is Rs. 25, the sum is:  
A. Rs. 9000      B. Rs. 9500      C. Rs. 10,000      D. Rs. 10,500      E. None of these
21. The difference between compound and simple interest at a certain rate on Rs. 2000 at the end of two years is Rs. 12.8. The rate of interest per annum is  
A. 6.8%      B. 8%      C. 12.8%      D. 16.8%      E. None of these
22. If a sum of money at simple interest doubles itself in 6 years, it will become four times in:  
A. 14 years      B. 12 years      C. 18 years      D. 16 years      E. None of these
23. A sum of money doubles in 3 years at compound interest, compounded annually. It will become 4 times of itself in:  
A. 12 years      B. 9 years      C. 8 years      D. 6 years      E. None of these
24. If the amount is 6 1 4 times the sum after 2 years at compound interest, the rate of interest per annum is:  
A. 130%      B. 140%      C. 125%      D. 150%      E. None of these
25. Amit invested an amount of Rs. 25000 in fixed deposit @ C.I. 8% per annum for 2 years. What amount Amit will get :  
A. Rs. 28240      B. Rs. 28540      C. Rs. 29240      D. Rs. 29160      E. None of these
26. Find the ratio of S.I. & C.I. on a certain sum of money at 5% per annum for 2 years  
A. 50 : 51      B. 40 : 41      C. 30 : 31      D. 45 : 46      E. None the these

27. A sum of money invested at S.I. accrued to Rs. 800 in 3 years and to Rs. 840 in 4 years. The rate of interest per annum is.

- A. 2 1/2%                      B. 4%                      C. 5%                      D. 6 2/3%                      E. None of these
28. What is difference between C.I. and S.I. of Rs. 12000 on 5% per annum for 2 years?  
A. 35                      B. 25                      C. 30                      D. 40                      E. None of these
29. Find the difference between C.I. & S.I. on Rs. 15000 at 3% per annum for 3 years?  
A. 40.91                      B. 73.91                      C. 39.91                      D. 30                      E. 35
30. Find the difference between C.I. & S.I. on Rs. 13000 at 4% per annum for 3 years?  
A. Rs. 63.23                      B. Rs. 73.25                      C. Rs. 68.25                      D. Rs. 70.29                      E. Rs. 59.25

### MODERATE LEVEL OF QUESTIONS :

1. Prabhat took a certain amount as a loan from bank at the rate of 8% Simple interest per annum and gave the same amount to Ashish as a loan at the rate of 12% p.a. on S.I. If at the end of 12 yrs, he made a profit of Rs. 320 in the deal, What was the original amount?

- A. Rs. 500                      B. Rs. 600                      C. Rs. 666.67                      D. Rs. 750.27                      E. None of above

2. What annual instalment will discharge a debt of Rs. 1092 due in 3 years at 12% Simple interest?

- A. Rs. 250                      B. Rs. 275                      C. Rs. 300                      D. Rs. 325                      E. Rs. 350

3. A Man invests a certain sum of money at 6% p.a. Simple interest and another sum at 7% p.a. Simple interest. His income from interest after 2 years was Rs. 354. One fourth of the first sum is equal to one fifth of the second sum. Find the total sum he invested?

- A. Rs. 1500                      B. Rs. 1200                      C. Rs. 2700                      D. Rs. 5400                      E. None of these

4. Mr. Thomas invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years be Rs. 3508, what was the amount invested in Scheme B?

- A. Rs. 6400                      B. Rs. 6500                      C. Rs. 7200                      D. Rs. 7500                      E. None of these

5. 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 is charging an interest of 10%, the effective rate of interest becomes:

- A. 10%                      B. 10.25%                      C. 10.5%                      D. 15%                      E. None of these

6. A sum of Rs. 725 is lent in the beginning of a year at a certain rate of interest. After 8 months, a sum of Rs. 362.50 more is lent but at the rate twice the former. At the end of the year, Rs. 33.50 is earned as interest from both the loans. What was the original rate of interest?

- A. 3.6%                      B. 4.5%                      C. 5%                      D. 6%                      E. None of these

7. Aditya invest Rs. 50,000 in a fixed deposit at 10% C.I. for 2 years. At the end of 2 years she put the money in another deposit at 12% S.I. for 3 years. What was the final value of the initial Investment?

- A. Rs. 80000                      B. Rs. 81280                      C. Rs. 82280                      D. Rs. 83280                      E. None of these

8. There is 60% increase in an amount in 6 years at simple interest. What will be the compound interest of Rs. 12,000 after 3 years at the same rate?

- A. Rs. 2160                      B. Rs. 3120                      C. Rs. 3972                      D. Rs. 6240                      E. None of these

9. A bank offers 5% compound interest calculated on half-yearly basis. A customer deposits Rs. 1600 each on 1st January and 1st July of a year. At the end of the year, the amount he would have gained by way of interest is:

- A. Rs. 120                      B. Rs. 121                      C. Rs. 122                      D. Rs. 123                      E. None of these

10. Aditya invested certain amount in two different schemes A and B. Scheme A offer S.I @ 12 p.c.p.a. and scheme B offer C.I. @ 10 p.c.p.a. Interest accrued on the amount invested in scheme A in 2 years was Rs. 3600 and the total amount invested was Rs. 35000. What was the interest accrued on the amount invested in scheme B?

- A. Rs. 4500                      B. Rs. 4200                      C. Rs. 4000                      D. Cannot be determine

11. The population of a town in 2009 was 125000. It increase 10% per year. What is the population after 3 years?

- A. 166375                      B. 170000                      C. 125000                      D. 10000                      E. None of these

12. A sum of Rs. 1500 amounts to Rs. 3000 in five years at a certain rate of simple interest. If the rate of interest is increased by 1% the same sum in the same time would amount to:

- A. Rs. 3,288                      B. Rs. 3,312                      C. Rs. 3,340                      D. Rs. 3075                      E. None of these

13. Abhinav invested a certain amount at the rate of 8 p.c.p.a. for 5 years and obtained a SI of Rs. 3800. Had he invested the same amount at the same interest for 2 years, how much amount would she have obtained as CI at the end of 2 years?

- A. Rs. 1520                      B. Rs. 1550.5                      C. Rs. 1550                      D. Rs. 1580.8                      E. None of these

14. Nutan borrowed some money at rate of 4 p.c.p.a. for the first three year, at the rate of 8 p.c.p.a. for the next 2 years and at the rate of 9 p.c.p.a. for the period beyond 5 years. If she pay a total SI of Rs. 19550

at the end of 7 years. How much money did she borrow?

- A.Rs. 41500      B. Rs. 42500      C. Rs. 39500      D. Rs. 40500      E. None of these

15. Girish invested some money in a bank. After eight years his amount became triple. How many times of the original sum will the money become in 20 years at Simple Interest?

- A.5 times      B. 6 times      C. 7 times      D. 8 times      E. None of these

16. Ram divided 2189 in three parts such that interest on them after 1, 2 and 3 years respectively be equal. The rate of SI is 4% per annum in all cases. The smallest part is

- A.Rs. 702      B. Rs. 398      C. Rs. 425      D. Rs. 756      E. Rs. 1093

17. Ravi invested a total amount of Rs. 65000 in three different schemes A, B, C with rate of interest 12 p.c.p.a., 16 p.c.p.a. and 18 p.c.p.a. respectively and earned a total interest of Rs. 10,180 in one year. If the amount invested in A is 72% of the amount invested in C then what was the amount invested in scheme B.

- A.Rs. 15000      B. Rs. 25000      C. Rs. 22000      D. Rs. 18000      E. CBD

18. The population of Mumbai increase 5% per annum. It's population was 100000 in 2004. What was it's population after 3 year?

- A.115760      B. 123575      C. 132557      D. 11000      E. None of these

19. Which of the statement given below are sufficient to answer the following question. What is the rate of interest p.c.p.a. on the amount of Rs. 15000 taking loan?

(1)The difference between C.I. & S.I. is Rs. 170

(2)The S.I. of 2 years is Rs. 2500

- A.Only I      B. Only II      C. Either I or II      D.neither I or II      E.both I and II together

20. Which of the statement given below are sufficient to answer the following question. What is the rate of interest per annum on an investment of Rs. 800?

(1)The income from S.I. at the end of 3 years at the same rate of interest is 19

(2)C.I. is 15.76 more than S.I. on same sum & same rate in 2 years

- A.Only I      B. Only II      C. Either I or II      D. neither I nor II      E. Both I and II together

21. Which information given below is sufficient to know the amount if the difference between the C.I. & S.I. for 2 years is 18?

(1)The rate is same at which an amount of Rs. 1000 become 1120 for 2 years in S.I.

(2)The principal given is Rs. 2000.

- A.Only I      B. Only II      C. Either I or II      D. Neither I nor II      E. Both I and II together

22. A sum of Rs. 1521 is lent out in two parts in such a way that the simple interest on one part at 10% for 5 yr is equal to that of another part at 8% for 10 yr. What will be the two parts of sum?

- A.Rs. 926 and Rs. 595      B. Rs. 906 and Rs. 615      C. Rs. 916 and Rs. 605      D.Rs. 936 and Rs. 585

E.None of the above

23. Rashmi lent Rs. 600 to Geeta for 2 yr and Rs. 150 to Seeta for 4 yr at same rate of interest and received altogether Rs. 80 as simple interest from both. Find the rate of interest.

- A.3 4%9      B.2 4%9      C.5 4%9      D.4 4%9      E. None the these

24. Hemant makes a fixed deposit of Rs. 20000 in Bank of India for a period of 3 yr. If the rate of interest be 13% SI per annum charged half-yearly, what amount will he get after 42 months?

- A.Rs. 27800      B. Rs. 28100      C. Rs. 29100      D. Rs. 30000      E.None of these

25. Gaurav borrowed Rs. 800 at 6% and Naresh borrowed Rs. 600 at 10%. After how much time, will they both have equal debts?

- A.15 1 yr3      B.14 1 yr2      C.18 1 yr3      D.16 2 yr3      E. None of these

26. What annual payment will discharge a debt of Rs. 1092 due in 2 yr at 12% simple interest?

- A.Rs. 725      B. Rs. 325      C. Rs. 515      D. Rs. 900      E. Rs. 400

27. The annual payment of Rs. 160 in 5 yr at 5% per annum simple interest will discharge a debt of

- A.Rs. 980      B. Rs. 880      C. Rs. 440      D. Rs. 220      E. None of the above

28. The population of a city increase at the rate of 5% pa. If the present population of the city is 370440, then what was its population 3 yr ago?

- A.3 lakh      B. 3.2 lakh      C. 3.4 lakh      D. 3.6 lakh      E. None of these

29. The population of a particular area of a city is 5000. It increases by 10% in 1st yr. It decreases by 20% in the 2nd yr because of some reason. In the 3rd yr, the population increases by 30%. What will be the population of area at the end of 3 years?

- A.5120      B. 5300      C. 5400      D. 5620      E. None of these

30. The cost price of a car is Rs. 400000. If its price decreases by 10% every year, then what will be the cost of car after 3 years?

- A.Rs. 3,00,000 B. Rs. 2,91,700 C. Rs. 2,91,600 D. Rs. 2,50,000 E. None of these
31. Suneeta borrowed certain sum from Reena for 2 yr at simple interest. Suneeta lent this sum to Venu at the same rate for 2 yr at compound interest. At the end of 2 yr, she received Rs. 110 as compound interest but paid Rs. 100 as simple interest. Find the sum and the rate of interest?
- A.Rs. 250, rate 10% pa B. Rs. 250, rate 20% pa C. Rs. 250, rate 25% pa  
D.Rs. 250, rate 30% pa E. None of these
32. Find the least number of complete years in which a sum of money put out at 20% compound interest will be more than double?
- A.3 yr B. 4 yr C. 5 yr D. 8 yr E. None of these
33. The population of a country is 10 crore and it is the possibility that the population will become 13.31 crore in 3 years. What will be the annual rate per cent of this growth?
- A.8% B. 12.7% C.10% D. 15% E. None of these
34. Income of Hemant was Rs. 4000. In the first 2 years, his income decreased by 10% and 5% respectively but in the third year, the income increased by 15%. What was his income at the end of third year?
- A.Rs. 3933 B. Rs. 4000 C. Rs. 3500 D. Rs. 3540 E. None of the above
35. A man borrows Rs. 5100 to be paid back with compound interest at the rate of 4% pa by the end of 2 years in two equal yearly instalments. How much will be each instalment?
- A.Rs. 2704 B. Rs. 2800 C. Rs. 3000 D.Rs. 2500 E. None of above
36. Divide Rs. 2602 between X and Y, so that the amount of X after 7 yr is equal to the amount of Y after 9 yr, the interest being compounded at 4% pa.
- A.Rs. 1352, Rs. 1250 B. Rs. 1400, Rs. 1350 C. Rs. 1215, Rs. 1300 D.Rs. 1500, Rs. 1450 E. None of these
37. If Rs. 3000 amounts to Rs. 4320 at compound interest in a certain time, then Rs. 3000 amount to what in half of the time?
- A.Rs. 3400 B. Rs. 3600 C. Rs. 38000 D. Rs. 3520 E. None of these
38. A sum of money lent at compound interest for 2 yr at 20% pa would fetch Rs. 964 more, if the interest was payable half-yearly than if it was payable annually. What is the sum?
- A.Rs. 40000 B. Rs. 60000 C. Rs. 90000 D. Rs. 500000 E. None of the above
39. A sum of Rs. 8448 is to be divided between X and Y who are respectively 18 and 19 yr old, in such a way that if their shares be invested at 6.25% per annum at compound interest, they will receive equal amounts on attaining the age of 21 yr. The present share of X is
- A.Rs. 4225 B. Rs. 4352 C. Rs. 4096 D. Rs. 4000 E. None of these
40. During the first year, the population of a village is increased by 5% and in second year it is diminished by 5%. At the end of the second year, its population was 47880. What was the population at the beginning of the first year?
- A.45500 B. 48000 C. 43500 D. 53000 E. None of these

### PREVIOUS YEAR QUESTIONS:

1. What amount a man would have received on a principal of Rs. 4000 after 2 years simple interest @ 5 p.c.p.a.?
- A.Rs. 4161 B. Rs. 5200 C. Rs. 4400 D. Rs. 4100 E. None of these
2. The simple interest accrued on an amount of Rs. 2500 at the end of six years is Rs. 1875. What would be the simple interest accrued on an amount of Rs. 6875 at the same rate and same period?
- A.Rs. 4556.5 B. Rs. 5025.25 C. Rs. 4895.25 D. Rs. 5245.5 E. None of these
3. Manish borrowed a sum of Rs. 1150 from Anil at the simple rate of 6 p.c.p.a. for 3 years. He then added some more money to the borrowed sum and lent it to Sunil for the same time at 9 p.c.p.a. at simple interest. If Manish gains Rs. 274.95 by way of interest on borrowed sum as well as his own amount from the whole transaction, then what is the sum lent by him to Sunil?
- A.Rs. 1290 B. Rs. 1785 C. Rs. 1285 D. Rs. 1200 E. None of these
4. Suhit borrowed a sum of Rs. 6300 from Vikas at the rate of 14% for 3 years, He then added some more money to the borrowed sum and lent it to Mohit at the rate of 16% of simple interest for the same time. If Suhit gained Rs. 618 in the whole transaction, then what sum did he lend to Mohit?
- A.Rs. 7000 B. Rs. 6800 C. Rs. 7200 D. CBD E. None of these
5. Arun invested a sum of money at a certain rate of simple interest for a period of 4 years. Had he invested the same sum for a period of 6 years the total interest earned by him would have been 50 per cent more than the earlier interest amount. What was the rate of interest per cent per annum?
- A.4 B. 8 C. 5 D. CBD E. None of these

6. Mayuri took a loan at simple interest rate of 6 p.c.p.a. in the first year and it increased by 1.5 p.c.p.a. every year. If she pays Rs. 8190 as interest at the end of 3 years, what was her loan amount?

- A.Rs. 36000      B. Rs. 35400      C. Rs. 36800      D. CBD      E. None of these

7. Heena invests an amount of 10250 @ 4 p.c.p.a. to obtain a total amount of Rs. 12710 on simple interest after a certain period. For how many years did she invest the amount to obtain the total sum?

- A.6 years      B. 8 years      C. 5 years      D. 4 years      E. None of these

8. Rs. 600 becomes Rs. 720 in 4 years when the interest is simple. If the rate of interest is increased by 2%, then what will be total amount?

- A.Rs. 642      B. Rs. 724      C. Rs. 725      D. Rs. 768      E. None of these

9. Anil invested an amount for 3 years at a simple interest rate of 9 p.c.p.a. He got an amount of Rs. 19050 at the end of 3 years. What principal amount did he invest?

- A.Rs. 14500      B. Rs. 11050      C. Rs. 15000      D. Rs. 10950      E. None of these

10. What is the interest received on a principal of Rs. 450 for 2 years, if the interest received on Re. 1 after 4 years at the same rate of simple interest is Rs. 0.40?

- A.Rs. 90      B. Rs. 180      C. Rs. 36      D. Rs. 200      E. None of these

11. Asmita invests an amount of Rs. 9535 at the rate of 4 per cent per annum to obtain a total amount of Rs. 11442 on simple interest after a certain period. For how many years did she invest the amount to obtain the total sum?

- A.10 years      B. 2 years      C. 5 years      D. 4 years      E. None of these

12. Mrs. Sushma lent out an amount of Rs. 3000 at 4% p.a. and some other amount at 5% p.a. If at the end of the year she received Rs. 138 as total interest, what amount she lent out at 5% p.a.?

- A.Rs. 200      B. Rs. 160      C. Rs. 120      D. Rs. 140      E. None of these

13. A person invests Rs. 2 lakhs at 12% p.a. for 1 year. If he invests Rs. 500 more, he is eligible for 13% p.a. interest. How much more interest would he receive, if he accepted the second option?

- A.Rs. 2155      B. Rs. 2045      C. Rs. 2165      D. Rs. 2065      E. None of these

14. A certain sum of money amounts to Rs. 756 in 2 years and to Rs. 873 in 3.5 years. Find the rate of interest?

- A.8%      B. 10%      C.13%      D. 15%      E. 18%

15. What annual payment will discharge a debt of Rs. 770 due in 5 years, the rate of interest being 5% per annum?

- A.Rs. 100      B. Rs. 110      C. Rs. 120      D. Rs. 130      E. Rs. 140

16. The rate of interest for the first 2 years is 3% per annum, for the next 3 years is 8% per annum and for the period beyond 5 years 10% per annum, If a man gets Rs. 1520 as a simple interest for 6 years, how much money did he deposit?

- A.Rs. 2500      B. Rs. 2800      C. Rs. 3500      D. Rs. 3800      E. Rs. 4200

17. Divide Rs. 4758 into three parts so that their amounts after 2, 3 and 4 years respectively may be equal, the rate of interest being 5% per annum. Find amount of 1st part?

- A.Rs. 1600      B. Rs. 1656      C. Rs. 1624      D. Rs. 1680      E. None of these

18. With a given rate of simple interest, the ratio of principal and amount of a certain period of time is 4 : 5. After 3 years, with the same rate of interest, the ratio of the principal and amount becomes 5 : 7. The rate of interest per annum is:

- A.4%      B.5%      C.6%      D. 7%      E. None of these

19. What would be the compound interest accrued on an amount of Rs.7850 at the rate of 14 p.c.p.a. in 2 years?

- A.Rs. 2351.86      B. Rs. 2880.37      C. Rs. 2518.22      D. Rs. 2290.23      E. None of these

20. The compound interest accrued on an amount at the end of 3 years @ 15 p.c.p.a. is Rs. 6500.52. What is the amount?

- A.Rs. 12480      B. Rs. 10500      C. Rs. 14800      D. Rs. 13620      E. None of these

21. What would be the compound interest accrued on amount of Rs.7400 @ 13.5 p.c.p.a. at the end of 2 years? (rounded off to two digits after decimal)

- A.Rs. 2136.87      B. Rs. 2306.81      C. Rs. 2032.18      D. Rs. 2132.87      E. None of these

22. The compound interest earned by Shivam on a certain amount at the end of 2 years at the rate of 8 p.c.p.a. was Rs. 1414.4. What was the total amount that Shivam got back at the end of 2 years in the form of principal plus interest earned?

- A.Rs. 9414.4      B. Rs. 9914.4      C. Rs. 9014.4      D. Rs. 8914.4      E. None of these

23. What sum of money at compound interest will amount to Rs. 5305.53 in 3 years, if the rate of interest is 1% for the first year, 2% for second year and 3% for the third year?

- A.Rs. 4800      B. Rs. 5000      C. Rs. 5200      D. Rs. 5400      E. None of these

24. If the difference between the simple interest and compound interest earned on an amount @ 15 p.c.p.a. at the end of 3 years is Rs. 595.35, what is the amount?

- A.Rs. 8400      B. Rs. 9200      C. Rs. 6800      D. CND      E. None of these



25. A man gets a simple interest of Rs. 1000 on a certain principal at the rate of 5 p.c.p.a. in 4 years. What compound interest will the man get on twice the principal in two years at the same rate?  
A.Rs. 1050      B. Rs. 1005      C. Rs. 1025      D. Rs. 125      E. None of these
26. The simple interest accrued on an amount of Rs. 20000 at the end of 3 years is Rs. 7200. What would be the compound interest accrued on the same amount at the same rate in the same period?  
A.Rs. 8342.36      B. Rs. 8098.56      C. Rs. 8246.16      D. Rs. 8112.86      E. None of these
27. The population of a state increases by 10% every year. If its population in the year 2003 was 15 lakhs, what was its population in the year 2005 (in lakhs)?  
A.16.5 lakhs      B. 15.5 lakhs      C. 17.25 lakhs      D. 18.25 lakhs      E. None of these
28. The value of a machine depreciates at the rate of 12 per cent per annum. It was purchased 3 years ago. Its present value is Rs. 29644.032, what was the purchase price of the machine?  
A.Rs. 48700      B. Rs. 43500      C. Rs. 38900      D. Rs. 39000      E. None of these
29. In year 2008, 5000 students were admitted in a college. It is found that the number of students admitted is constantly increasing by 24 per cent per year. How many students will be admitted in the college in the year 2010?  
A.Rs. 7688      B. Rs. 7868      C. Rs. 7400      D. Rs. 7480      E. None of these
30. The simple interest accrued on an amount of Rs. 19800 at the end of 3 years is Rs. 7128. What would be the compound interest accrued on the same amount at the same rate in the same period?  
A.Rs. 8934.6784      B. Rs. 8017.5744      C. Rs. 7861.8754      D. Rs. 6871.6734      E. None of these
31. If the difference between the simple and the compound interest earned on a sum of money at the rate of 5 p.c.p.a. for 2 years is Rs. 16, find the principal?  
A.Rs. 6200      B. Rs. 6400      C. Rs. 6250      D. Rs. 6750      E. None of these
32. The population of a town is 11200. It increases by 25% in the first year and decreases by 15% in the second year. What is the population of the town at the end of 2 years?  
A.14000      B. 11900      C. 16100      D. 13500      E. None of these
33. The production of a factory grows at a 8% p.a. What will be its production for the year 2010, if its production in 2008 was 70 lakh tonnes?  
A.63.48 lakh tones      B. 81.648 lakh tonnes      C. 81 lakh tones      D. 80.68 lakh tones      E. None of these
34. A deposited Rs. 6000 in a bank at 5% per annum simple interest. B deposited Rs. 5000 at 8% p.a. compound interest. After 2 years, the difference between their interests will be:  
A.Rs. 230      B. Rs. 232      C. Rs. 600      D. Rs. 832      E. None of these
35. If the rate of interest be 4% per annum for first year, 5% per annum for second year and 6% per annum for third year, then the compound interest of Rs. 10000 for 3 years will be:  
A.Rs. 1575.20      B. Rs. 1600      C. Rs. 1625.80      D. Rs. 2000      E. None of these
36. Sita deposited Rs. 5000 at 10% simple interest for 2 years. How much more money will Sita have in her account at the end of 2 years, if it is compounded semi-annually?  
A.Rs. 50      B. Rs. 40      C. Rs. 77.50      D. Rs. 85.50      E. None of these
37. If the compound interest on a certain sum for 2 years at 3% per annum is Rs. 101.50, then the simple interest on the same sum at the same rate and for the same time will be:  
A.Rs. 90.00      B. Rs. 95.50      C. Rs. 100.00      D. Rs. 98.25      E. None of these
38. The compound interest on a certain sum for 2 years at 12% per annum, compounded annually is Rs. 1272. The simple interest for that sum at the same rate and for the same period will be?  
A.Rs. 1296      B. Rs. 1196      C. Rs. 1220      D. Rs. 1200      E. None of these
39. An amount of money at compound interest grows up to Rs. 3840 in 4 years and up to Rs. 3936 in 5 years. Find the rate of interest?  
A.2.5%      B.2%      C. 3.5%      D. 2.05%      E. None of these
40. The difference between the simple and compound interest on a certain sum of money for 2 years at 4% per annum is Rs. 4. Find the sum?  
A.Rs. 2500      B. Rs. 2400      C. Rs. 2600      D. Rs. 2000      E. None of these

#### ANSWER KEY :

#### FOUNDATION

1	A	2	C	3	D	4	A	5	B	6	C	7	D	8	A	9	A	10	A
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11 E	12 B	13 E	14 C	15 B	16 B	17 B	18 B	19 D	20 C
21 B	22 C	23 D	24 D	25 D	26 B	27 C	28 C	29 A	30 A

## MODERATE

1 C	2 D	3 C	4 A	5 B	6 E	7 C	8 C	9 B	10 B
11 A	12 D	13 D	14 B	15 B	16 B	17 C	18 A	19 C	20 C
21 E	22 D	23 D	24 C	25 D	26 C	27 B	28 B	29 E	30 C
31 B	32 B	33 C	34 A	35 A	36 A	37 B	38 A	39 C	40 B

## PREVIOUS YEAR

1 C	2 E	3 B	4 B	5 D	6 E	7 A	8 D	9 C	10 A
11 C	12 E	13 D	14 C	15 E	16 D	17 B	18 B	19 A	20 A
21 D	22 B	23 B	24 A	25 C	26 B	27 E	28 B	29 A	30 B
31 B	32 B	33 B	34 B	35 A	36 C	37 C	38 D	39 A	40 A

