INTEREST CALCULATIONS

SMART TRAINING RESOURCES INDIA PVT LTD

HVITIC11215

CLASS WORK

1. Kaviya borrowed a sum of Rs.4800 from Anitha as a loan. She promised Anitha that she would pay it back in two equal instalments. If the rate of Interest be 5% per annum compounded annually, find the amount of each instalment
(a) Rs.2581.46 (b) Rs.4232.075
(c) Rs.2845.16 (d) Rs.4243.075

2. Equal sums of money are deposited in two different banks by M/s ABC Company, one at compound interest (compounded annually) and the other at simple interest, both at 15% per annum. If after two years, the difference in the amounts comes to Rs.360, what is the amount deposited with each bank?
(a) Rs.17200 (b) Rs.16400
(c) Rs.16000 (d) Rs.18400

3. Mr. X puts equal amount of money in two schemes: one at 10% per annum compound interest payable half yearly and the second at a certain percent per annum compound interest payable yearly. If he gets equal amounts after 3 yrs, what is the value of the interest percent in the second scheme?
(a) 10.25% (b) 15% (c) 22% (d) 21%

4. A sum of Rs.5887 is divided between Prince and Fernando, such that Prince's share at the end of 9 yrs is equal to Fernando's share at the end of 11 yrs both compounded annually at the rate of 5%. The share of Prince is
(a) Data inadequate (b) Rs.3087
(c) Rs.2000 (d) Rs.2088

5. A sum of money is accumulating at compound interest at a certain rate. If simple interest instead of compound were reckoned, the interest for the first two years would be diminished by Rs.20 and that for the first three years by Rs.61. Find the sum.
(a) Rs.7000 (b) Rs.47405 (c) Rs.45305 (d) Rs.8000

6. An amount of Rs.7500 is invested in a compound interest scheme for 4 years. The rate of interest is 2% for the first year, 3% for the next 2 years and for the last year, it is 4%. The final amount approximately is
(a) Rs.8356.7 (b) Rs.8557.45
(c) Rs.8440 (d) Rs.8635

7. A took a sum of Rs.4500 from B. He promised B that he would give back her money at the end of the year but she gave an option to him that he could pay her in two equal annual instalments. A agreed on her suggestion. If the rate of interest on the sum was 10% per annum, compounded annually, find the amount of the instalment given by A.
(a) Rs.2390 (b) Rs.3429
(c) Rs.2560 (d) Rs.2592

8. The simple interest accrued on an amount of Rs.27,500 at the end of three years is Rs.9900. What would be the difference between compound interest and simple interest on the same amount at the same rate in the same period?
(a) Rs.11550 (b) Rs.1262.52
(c) Rs.1235.52 (d) Rs.11135.52

9. Shawn invested one half of his savings in a bond that paid simple interest for 2 years and received $ 550 as interest. He invested the remaining in a bond that paid compound interest, interest being compounded annually, for the same 2 years at the same rate of interest and received $605 as interest. What was the value of his total savings before investing in these two bonds?
(a) $5500 (b) $7750 (c) $3550 (d) $2750

10. Raj borrowed Rs.7000 from a bank at 5% simple annual rate of interest. The amount is to be paid after five years. Raj paid Rs.4000 after two years. How much amount should he pay at the end of 5 years to pay off his debt completely?
(a) Rs.4050 (b) Rs.4100 (c) Rs.4150 (d) Rs.4200

11. Effective annual rate of interest corresponding to nominal rate of 6% per annum compounded half yearly will be
(a) 6.09% (b) 6.10% (c) 6.12% (d) 6.14%

12. Adam borrowed some money at the rate of 6% p.a. for the first two years, at the rate of 9% p.a. for the next three years, and at the rate of 14% p.a. for the period beyond five years. If he pays a total interest of Rs.11,400 at the end of nine years, how much money did he borrow ?
(a) Rs.15000 (b) Rs.11000
(c) Rs.12000 (d) Rs.18000

13. The compound interest on a sum for 2 years is Rs.832 and the simple interest on the same sum for the same period is Rs.800. The difference between the compound and simple interest for 3 years will be
(a) Rs.98.56 (b) Rs.99.86 (c) Rs.96.62 (d) Rs.97.77

14. Sally borrowed a sum of Rs.14000 at 9% rate of interest per annum from Martha for a term of 2 years. After completion of one year, Sally repaid some amount and finally at the end of two years Sally completed the debt by discharging a sum of Rs.11990. What amount did Sally pay at the end of the first year?
(a) Rs.4560 (b) Rs.4260 (c) Rs.4460 (d) Rs.4360

15. What annual instalment will discharge a debt of Rs.6450 due in 4 years at 5% simple interest?
(a) Rs.1000 (b) Rs.1200 (c) Rs.1450 (d) Rs.1500

16. A sum of Rs.10 is given as a loan to be returned in 6 monthly instalments at Rs.3. What is the rate of interest?
(a) 500% (b) 620% (c) 640% (d) 580%

17. Rs.7500 is to be paid in 3 years at 5% C.I in equal annual instalments. Find the value of the instalment?
(a) Rs.2754 (b) Rs.2457 (c) Rs.2547 (d) Rs.2745

18. Interest on a sum of money at the end of 3 years is $3/8^{th}$ of the sum itself. Find the rate of interest.
(a) 11.5% (b) 12.2% (c) 12.5% (d) 13.5%

19. Arun borrowed a certain sum from Manish at a certain rate of simple interest for 2 years. He lent this sum to Sunil at the same rate of interest compounded annually for the same period. At the end of two years, he received Rs.2400 as compound interest but paid Rs.2000 only as simple interest. Find the rate of interest.
(a) 40% (b) 30% (c) 10% (d) 20%

20. Divide Rs.3364 between A and B, so that A's share at the end of 5 years may equal to B's share at the end of 7 years, the compound interest being at 5 percent.
(a) Rs.1764, Rs.1600 (b) Rs.1756, Rs.1608
(c) Rs.1722, Rs.1642 (d) None of these

HOME ASSIGNMENT

1. On a certain sum of amount, the difference between the compound interest (compounded annually) and the simple interest for 2 years both at 10% per annum is Rs.28. If the compound interest is reckoned half yearly, then the difference between the two interests is
(a) Rs.44 (b) Rs.28.5 (c) Rs.44.45 (d) Rs.43.42

2. The difference between the amount of compound interest and simple interest accrued at the same rate on an amount of Rs.26000 at the end of 3 years is Rs.2994.134. What is the rate of interest% p.a.?
(a) 22 (b) 17
(c) 19 (d) None of these

3. Sonu invested 10% more than Mona. Mona invested 10% less than Raghu. If the total sum of their investments is Rs.5780, how much amount did Raghu invest?
(a) Rs.2000 (b) Rs.3000
(c) Rs.4000 (d) Rs.3500

4. Two equal sums were invested at an annual rate of 10%, one sum at simple interest and the other at compound interest. If the difference between the two after two years is Rs.200, what was the sum invested in each?
(a) Rs.10000 (b) Rs.15000
(c) Rs.20000 (d) Rs.25000

5. If in a certain number of years, Rs.10000 amount to Rs.160000 at compound interest, in half that time Rs.10000 will amount to
(a) Rs.50000 (b) Rs.40000
(c) Rs.80000 (d) Rs.60000

6. A person borrows Rs.5000 for 2 years at 4% p.a. simple interest. He immediately lends it to another person at $6\frac{1}{4}$ % p.a. for 2 years. Find his gain in the transaction per year.
(a) Rs.115.50 (b) Rs.120.20
(c) Rs.112.50 (d) Rs.117.75

7. Ravi borrowed Rs.2500 from A and B. For A, he paid 5% and for B he paid 7%. The total interest paid by him is Rs.160. Find the amounts borrowed from A & B.
(a) Rs.500, Rs.2000 (b) Rs.1050, Rs.1450
(c) Rs.750, Rs.1750 (d) Rs.650, Rs.1850

8. In five years, Rs.2000 becomes Rs.5000. In how many years at the same rate will Rs.700 become Rs.910?
(a) 1 (b) 0.8 (c) 1.5 (d) 2

9. The difference between the simple interest on a certain sum at the rate of 10% per annum for 2 years and compound interest which is compounded every 6 months is Rs.124.05. What is the principal sum?
(a) Rs.10000 (b) Rs.6000
(c) Rs.12000 (d) Rs.8000

10. A sum is invested for 3 years compounded at 5%, 10% and 20 % respectively. In three years, if the sum amounts to Rs.1386, then find the sum.
(a) Rs.1200 (b) Rs.1150
(c) Rs.1050 (d) Rs.1000