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MATHEMATICS OF FINANCE

Rs. 8,000 becomes Rs. 10,000 in two years at simple interest. The amount that will become Rs. 6,875 in 3 years at the same rate of interest is : (N-6)

(a) Rs. 4,850 (b) Rs. 5,000 (c) Rs. 5,500 (d) Rs. 5,275

The rate of simple interest on a sum of money is 6% p.a. for first 3 years, 8% p.a. for the next five years and 10% p.a. for the period beyond 8 years. If the simple interest accured by the sum for a period for 10 years is Rs. 1560. The sum is (F-7)

(a) Rs. 1,500 (b) Rs. 2,000 (c) Rs. 3,000 (d) Rs. 5,000

A sum of money doubles itself in 10 years. The number of yeras it would treble itself is : (F-7)

(a) 25 years (b) 15 years (c) 20 years (d) None

A certain sum of money amounts to Rs. 6,300 in two years and Rs. 7,875 in three years nine months at simple interest. Find the rate of interest per annum: (M-7)

(a) 20% (b) 18% (c) 15% (d) 10%

A person borrows Rs. 5,000 for 2 years at 4% p.a. simple interest. He immediately lends to another person at $6\frac{1}{4}\%$ p.a. for 2 years. Find his gain in the transaction per year : (N-7)

(a) Rs. 112.50 (b) Rs. 125 (c) Rs. 225 (d) Rs. 167.50

Two equal sums of money were lent at simple interest at 11% p.a. for $3\frac{1}{2}$ years and $4\frac{1}{2}$ years respectively. If the difference in interests for two periods was Rs. 412.50, then each sum is: (F-8)

(a) Rs. 3,250 (b) Rs. 3,500 (c) Rs. 3,750 (d) Rs. 4,350

In how much time would the simple interest on a certain sum be 0.125 times the principal at 10% per annum?(J-8)

(a) $1\frac{1}{4}$ years (b) $1\frac{3}{4}$ years (c) $2\frac{1}{4}$ years (d) $2\frac{3}{4}$ years

8. What is the rate of simple interest if a sum of money amounts to Rs. 2,784 in 4 years and Rs. 2,688 in 3 years?(J-9)

(a) 1% p.a. (b) 4% p.a. (c) 5% p.a. (d) 8% p.a.

9. If a simple interest on a sum of money at 6% p.a. for 7 years is equal to twice of simple interest on another sum for 9 years at 5% p.a.. The ratio will be : (J-11)

(a) 2 : 15 (b) 7 : 15 (c) 15 : 7 (d) 1 : 7

10. By mistake a clerk, calculated the simple interest on principal for 5 months at 6.5% p.a. Instead of 6 months at 5.5% p.a. If the error in calculation was Rs. 25.40. The original sum of principal was (J-11)

(a) Rs. 60,690 (b) Rs. 60,960 (c) Rs. 90,660 (d) Rs. 90,690

11. If the Simple Interest on Rs. 1,400 for 3 years is less than the simple interest on Rs. 1,800 for the same period by Rs. 80, then the rate of interest is (D-11)

(a) 5.67% (b) 6.67% (c) 7.20% (d) 5.00%

12. The S.I. on a sum of money is $\frac{4}{9}$ of the principal and the no. of years is equal to the rate of interest per annum? (J-12)

(a) 5% (b) 20/3% (c) 22/7% (d) 6%

13. Simple interest on Rs. 2,000 for 5 months at 16% p.a. is _____. (J-12)

(a) Rs. 133.33 (b) Rs. 133.26 (c) Rs. 134.00 (d) Rs. 132.09

14. How much investment is required to yield an Annual income of Rs. 420 at 7% p.a. Simple interest. (D-12)

(a) Rs. 6,000 (b) Rs. 6,420 (c) Rs. 5,580 (d) Rs. 5,000

15. Mr. X invests Rs. 90,500 in post office at 7.5% p.a. simple interest. While calculating the rate was wrongly taken as 5.7% p.a. The difference in amounts maturity is Rs. 9,774. Find the period for which the sum was invested (D-12)

(a) 7 years (b) 5.8 years (c) 6 years (d) 8 years

16. In what time will a sum of money double itself at 6.25% p.a. simple interest? (D-13)

(a) 5 years (b) 8 years (c) 12 years (d) 16 years

17. What principal will amount to Rs. 370 in 6 years at 8% p.a. at simple interest? (D-13)

(a) Rs. 210 (b) Rs. 250 (c) Rs. 310 (d) Rs. 350

18. If a sum triples in 15 years at simple rate of interest, the rate of interest per annum will be: (J-14)

(a) 13.0% (b) 13.3% (c) 13.5% (d) 18.0%

19. A certain sum of money was invested at simple rate of interest for three years. If the same has been invested at a rate that was seven percent higher, the interest amountwould have been Rs. 882 more. The amount of sum invested is :(D-14)

(a) Rs. 12,600 (b) Rs. 6,800 (c) Rs. 4,200 (d) Rs. 2,800

20. A sum of money doubles itself in 8 years at simple interest. The number of years it would triple itself is _____. (J-15)

(a) 20 years (b) 12 years (c) 16 years (d) None of these

21. A sum of Rs. 44,000 is divided into three parts such that the corresponding interest earned after 2 years, 3 years and 6 years may be equal. If the rates of simple interest are 6% p.a., 8% p.a. and 6% p.a. respectively, then the smallest part of the sum will be (J-15)

(a) Rs. 4,000 (b) Rs. 8,000 (c) Rs. 10,000 (d) Rs. 12,000

22. In how many years will a sum of money become four times at 12% p.a. simple interest? (D-15)

(a) 18 years (b) 21 years (c) 25 years (d) 28 years

23. The simple interest for a certain sum for 2 years at 10% per annum is Rs. 90. The corresponding compound interest is (In Rs.): (D-15)

(a) 99 (b) 95.60 (c) 94.50 (d) 108

24. A person lends Rs. 6,000 for 4 years and Rs. 8,000 for 3 years at simple interest. If he gets Rs. 2,400 as total interest, the rate of interest is (D-16)

(a) 5% (b) 4% (c) 6% (d) 7%

25. The difference between the simple and compound interest on a certain sum for 3 year at 5% p.a. is Rs. 228.75. The compound interest on the sum for 2 years at 5% p.a. is : (N-6)

(a) Rs. 3,175 (b) Rs. 3,075 (c) Rs. 3,275 (d) Rs. 2,975

26. It what time will Rs. 3,90,625 amount to Rs. 4,56,976 at 8% per annum, when the interest is compounded semi-annually? (Given : $(1.04)^4 = 1.16986$) (F-7)

(a) 2 years (b) 4 years (c) 5 years (d) 7 years

27. How long will Rs. 12,000 take to amount to Rs. 14,000 at 5% p.a. converted quarterly? [Given : $(1.0125)_{12\cdot4} = 1.1666$] (M-7)

(a) 3 years (b) 3.1 years (c) 13.5 years (d) 12.4 years

28. If Rs. 1,000 be invested at interest rate of 5% and the interest be added to the principal every 10 years, then the number of years in which it will amount to Rs. 2,000 is :(A-7)

(a) $16\frac{2}{3}$ years (b) $16\frac{1}{4}$ years (c) 16 years (d) $6\frac{2}{3}$ years

The annual birth and death rates per 1000 are 39.4 and 19.4 respectively. The number of years in which the population will be doubled assuming there is no immigration or emigration is (A-7)

(a) 35 years (b) 30 years (c) 25 years (d) None of these

The effective rate equivalent to nominal rate of 6% compounded monthly is : (A-7)

(a) 6.05 (b) 6.16 (c) 6.26 (d) 6.07

A person deposited Rs. 5,000 in a bank. The deposit was left to accumulate at 6% compounded quarterly for the first five years and at 8% compounded semi-annually for the next eight years. The compound amount at the end of 13 years is : (N-7)

(a) Rs. 12621.50 (b) Rs. 12613.10 (c) Rs. 13613.10 (d) None

2. Raja aged 40 wishes his wife Rani to have Rs. 40 lakhs at his death. If his expectation of life is another 30 years and he starts making equal annual investments commencing now at 3% compound interest p.a. How much should he invest annually? (N-7)

(a) Rs. 84,077 (b) Rs. 81,628 (c) Rs. 84,449 (d) Rs. 84,247

3. Anshul's father wishes to have Rs. 75,000 in a bank account when his first college expenses begin. How much amount his father should deposit now at 6.5% compounded annually if Anshul is to start college in 8 years hence from now? (F-8)

(a) Rs. 45,317 (b) Rs. 46,360 (c) Rs. 55,360 (d) Rs. 48,360

4. The difference between compound interest and simple interest on a certain sum for 2 years @ 10% p.a. is Rs. 10. Find the sum : (J-8)

(a) Rs. 1,010 (b) Rs. 1,095 (c) Rs. 1,000 (d) Rs. 990

5. A machine worth Rs. 4,90,740 is depreciated at 15% on its opening value each year. When its value would reduce to Rs. 2,00,000 : (J-8)

(a) 5 years 6 months (b) 5 years 7 months (c) 5 years 5 months (d) None

If the difference between simple interest and compound interest is Rs. 11 at rate of 10% for two years, then find the sum. (D-8)

(a) Rs. 1,200 (b) Rs. 1,100 (c) Rs. 1,000 (d) None of these

Find the numbers of years in which a sum doubles itself at the rate of 8% per annum. (D-8)

(a) $11\frac{1}{2}$ (b) $12\frac{1}{2}$ (c) $9\frac{1}{2}$ (d) $13\frac{1}{2}$

In how many years, a sum will become double at 5% p.a. compound interest. (J-9)

(a) 14.0 years (b) 14.1 years (c) 14.2 years (d) 14.3 years

39. The time by which a sum of money is 8 times of itself if it doubles itself in 15 years. (J-9)

(a) 42 years (b) 43 years (c) 45 years (d) 46 years

40. A sum amount to Rs. 1,331 at a principal of Rs. 1,000 at 10% compounded annually. Find the time. (J-9)

(a) 3.31 years (b) 4 years (c) 3 years (d) 2 years

41. In how many years, a sum of Rs. 1000 compounded annually @ 10%, will amount to Rs. 1331? (D-9)

(a) 6 years (b) 5 years (c) 4 years (d) 3 years

42. The compounded interest for a certain sum @ 5% p.a. for first year is Rs. 25. The SI for the same money @ 5% p.a. for 2 years will be. (D-9)

(a) Rs. 40 (b) Rs. 50 (c) Rs. 60 (d) Rs. 70

43. At what % rate of compound interest (C.I) will a sum of money become 16 times in four years, if interest is being calculated compounding annually: (J-10)

(a) r = 100% (b) r = 10% (c) r = 200% (d) r = 20%

44. If the simple interest on a sum of money at 12% p.a. for two years is Rs. 3,600. The compound interest on the same sum for two years at the same rate is : (J-10)

(a) Rs. 3,816 (b) Rs. 3,806 (c) Rs. 3,861 (d) Rs. 3,860

45. The effective annual rate of interest corresponding nominal rate 6% p.a. payable half yearly is (D-10)

(a) 6.06% (b) 6.07% (c) 6.08% (d) 6.09%

46. The cost of Machinery is Rs. 1,25,000/- If its useful life is estimated to be 20 years and the rate of depreciation of its cost is 10% p.a., then the scrap value of the Machinery is (D-10) [Given that $(0.9)^{20} = 0.1215$]

(a) 15,187 (b) 15,400 (c) 15,300 (d) 15,250

47. Mr. X invests 'P' amount at Simple Interest rate 10% and Mr. Y invests 'Q' amount at Compound Interest rate 5% compounded annually. At the end of two years both get the same amount of interest, then the relation between two amounts P and Q is given by (D-10)

(a) $P = \frac{41Q}{80}$ (b) $P = \frac{41Q}{40}$ (c) $P = \frac{41Q}{100}$ (d) $P = \frac{41Q}{200}$

48. If the difference of S.I and C.I is Rs. 72 at 12% for 2 years. Calculate the amount. (J-11)

(a) 8,000 (b) 6,000 (c) 5,000 (d) 7,750

Nominal rate of interest is 9.9% p.a. If interest is Compounded monthly, What will be effective rate of interest (given $\left(\frac{4033}{4000}\right)^{12}$ = 1.1036 (approx))? (D-11)

(a) 10.36% (b) 9.36% (c) 11.36% (d) 9.9%

The difference between compound and simple interest on a certain sum of money for 2 years at 4% p.a. is Rs. 1. The sum (in Rs.) is : (J-13)

(a) 625 (b) 630 (c) 640 (d) 635

51. A sum of money compounded annually becomes Rs. 1,140 in two years and Rs. 1,710 in three years. Find the rate of interest per annum. (J-13)

(a) 30% (b) 40% (c) 50% (d) 60%

52. On what sum difference between compound interest and simple interest for two years at 7% p.a. interest is Rs. 29.4. (D-13)

(a) Rs. 5000 (b) Rs. 5500 (c) Rs. 6000 (d) Rs. 6500

53. The partners A and B together lent Rs. 3,903 at 4% per annum interest compounded annually. After a span of 7 years, A gets the same amount as B gets after 9 years. The share of A in the sum of Rs. 3,903 would have been : (J-14)

(a) Rs. 1,875 (b) Rs. 2,280 (c) Rs. 2,028 (d) Rs. 2,820

54. How much amount is required to be invested every year as to accumulate Rs. 6,00,000 at the end of 10 years, if interest is compounded annually at 10% rate of interest (J-14)

[Given : $(1.1)^{10}$ = 2.59374].

(a) Rs. 37,467 (b) Rs. 37,476 (c) Rs. 37,647 (d) Rs. 37,674

55. A sum of money invested of compound interest doubles itself in four yers. It becomes 32 times of itself at the same rate of compound interest in (D-14)

(a) 12 years (b) 16 years (c) 20 years (d) 24 years

56. Suppose your parent decided to open a PPF (Public Provident Fund) account in a bank towrds your name with Rs. 10,000 every year starting from today for next 16 years. When you receive and get 8.5% per annum interest rate compounded annually. What is the present value of this annuity? (Give answer in Rs. without any fraction.) (D-15)

(Given P (15,0.085) = 8.304236576)

(a) 83,042 (b) 1,66,084 (c) 93,042 (d) 8,30,423

57. Mr. X bought an electronic item for Rs. 1,000. What would be the future value of the same item after 2 years, if the value is compounded semi annually at 22% per annum? (J-16)

(a) Rs. 1488.40 (b) Rs. 1518.07 (c) Rs. 2008.07 (d) Rs. 2200.00

58. If the compound interest on a sum for two year at the rate 5% p.a. is Rs. 512.50, then the principle is _____. (D-17)

(a) 4,000 (b) 3,000 (c) 5,000 (d) None of these

59. Find effective rate of interest corresponding to the nominal rate of interest 7% compounded monthly is _____. (D-17)

(a) 7.26% (b) 7.22% (c) 7.02% (d) 7.20

60. If an amount is kept at simple interest, it earns an interest of Rs. 600 in first two years but when kept at compound interest it earns an interest of Rs. 660 for the same period, then the rate of interest and principal amount respectively are : (J-16)

(a) 20%, Rs. 1,200 (b) 10%, Rs. 1,200 (c) 20%, Rs. 1,500 (d) 10%, Rs. 1,500

61. The sum invested at 4% per annum compounded Semi-annually amounts to Rs. 7,803 at the end of one year, is (D-16)

(a) Rs. 7,000 (b) Rs. 7,500 (c) Rs. 7,225 (d) Rs. 8,000

62. A compound interest on a sum for 2 years is Rs. 30 more than the simple interest at the rate of 5% per annum then the sum is (D-16)

(a) Rs. 11,000 (b) Rs. 13,000 (c) Rs. 12,000 (d) Rs. 15,000

63. The difference between simple and compound interest on a sum of Rs. 10000 for 4 years at the rate of interest 10% per annum is _____ (J-17)

(a) 650 (b) 640 (c) 641 (d) 600

64. Mr. X Invests Rs. 10,000 every year starting from today for next 10 years suppose interest rate is 8% per annum compounded annually. Calculate future value of annuity: (N-6)
(Given that $(1 + 0.08)^{10} = 2.15892500$]

(a) Rs. 156454.88 (b) Rs. 144865.625 (c) Rs. 156554.88 (d) Rs. None of these

65. The present value of an annuity of Rs. 3,000 for 15 years at 4.5% p.a. C.I. is :(N-6)
[Given that $(1.045)^{15} = 1.935282$]

(a) Rs. 23,809.67 (b) Rs. 32,218.67 (c) Rs. 32,908.67 (d) None of these

66. A machine can be purchased for Rs. 50,000. Machine will contribute Rs. 12,000 per year for the next five yeras. Assume borrowing cost is 10% per annum. Determine whether machine should be purchased or not: (F-7)

(a) Should be purchased (b) Should not be purchased
(c) Can't say about purchase (d) None of these

67. How much amount is required to be invested every year so as to accumulate Rs. 3,00,000 at the end of 10 years, if interest is compounded annually at 10%? [Give $(1.1)^{10} = 2.5937$] (F-7)

(a) Rs. 18,823.65 (b) Rs. 18,828.65 (c) Rs. 18,832.65 (d) Rs. 18.882.65

68. A company is considering proposal of purchasing a machine either by making full payment of ₹ 4,000 or by leasing it for four years at an annual rate of ₹ 1250. Which course of action is preferable, if the company can borrow money at 14% compounded annually? [Given : $(1.14)^4 = 1.68896$] (M-7)

(a) Leasing is preferable (b) Should be purchased (c) No difference (d) None of these

69. Vipul purchases a car for Rs. 5,50,000. He gets a loan of Rs. 5,00,000 at 15% p.a. from a Bank and balance Rs. 50,000 he pays at the time of purchase. He has to pay the whole amount of loan in 12 equal monthly instalments with interest starting from the end of the first month. The money he has to pay at the end of every month is : (M-7)
[Given $(1.0125)^{12} = 1.16075452$]

(a) Rs. 45, 130.43 (b) Rs. Rs. 45,230.43 (c) Rs. 45,330.43 (d) None of these

70. A company establishes a sinking fund to provide for the payment of Rs. 2,00,000 debt maturing in 20 years. Contributions to the fund are to be made at the end of every year. Find the amount of each annual deposit if interest is 5% per annum : (A-7)

(a) Rs. 6,142 (b) Rs. 6,049 (c) Rs. 6,052 (d) Rs. 6,159

71. A company may obtain a machine either by leasing it for 5 years (useful life) at an annual rent of Rs. 2,000 or by purchasing the machine of Rs. 8,100. If the company can borrow money at 18% per annum, which alternative is preferable? (F-8)

(a) Leasing (b) Purchasing (c) Can't say (d) None of these

72. A sinking fund is created for redeeming debentures worth Rs. 5 lacs at the end of 25 years. How much provision needs to be made out of profits each year provided sinking fund investments can earn interest at 4% p.a.? (J-8)

(a) 12,006 (b) 12,040 (c) 12,039 (d) 12,035

Future value of an ordinary annuity : (D-8)

(a) $A(n, i) = A\left[\frac{(1+i)^n - 1}{i}\right]$

(b) $A(n, i) = A\left[\frac{(1+i)^n + 1}{i}\right]$

(c) $A(n, i) = A\left[\frac{1-(1+i)^n}{i}\right]$

(d) $A(n, i) = A\left[\frac{(1+i)^n - 1}{i(1+i)^n}\right]$

Paul borrows Rs. 20,000 on condition to repay it with compound interest at 5% p.a. in annual instalment of Rs. 2,000 each. Find the number of years in which the debt would be paid of. (J-9)

(a) 10 years (b) 12 years (c) 14 years (d) 15 years

Find the present value of an annuity of Rs. 1,000 payable at the end of each year for 10 years. If rate of interest is 6% compounding per annum (given $(1.06)^{-10} = 0.5584$) :(J-10)

(a) Rs. 7,360 (b) Rs. 8,360 (c) Rs. 12,000 (d) None of these

The future value of an annuity of Rs. 5,000 is made annually for 8 years at interest rate of 9% compounded annually [Given than $(1.09)^8 = 1.99256$] is _____(D-10)

(a) Rs. 55,142.22 (b) Rs. 65,142.22 (c) Rs. 65,532.22 (d) Rs. 57,425.22

The future value of an annuity of Rs. 1,000 made annually for 5 years at the interest of 14% compounded annually is : [Given $(1.14)^5 = 1.92541$] (D-14)

(a) Rs. 5,610 (b) Rs. 6,610 (c) Rs. 6,160 (d) Rs. 5,160

The future value of an annuity of Rs. 1500 made anually for 5 years at an interest rate of 10% compounded annually is _____ (Given that $(1.1)^5 = 1.61051$ (J-17)

(a) 9517.56 (b) 9157.65 (c) 9715.56 (d) 9175.65

What sum should be invested at the end of every year so as to accumulate an amount of Rs. 796870 at the end of 10 years at the rate of interest 10% compounded annually, given that A(10,0.1) = 15.9374 (J-17)

(a) 40,000 (b) 4,50,000 (c) 4,80,000 (d) 50,000

In Simple interest, a certain sum becomes Rs. 97,920 in 3 years, and Rs. 1,15,200 in 5 years, then the rate of interest is:(J-18)

(a) 10% (b) 11.2% (c) 12% (d) 13.6%

In Compound interest, if the amount is 9 times to its principle in two years then the rate of interest is?(J-18)

(a) 300% (b) 200% (c) 150% (d) 100%

82. If the difference between compound interest and simple interest for 3 years is 912 at the rate of 4% p.a. then principle is:(J-18)

(a) Rs. 1,87,500 (b) Rs. 1,87,000 (c) Rs. 1,87,550 (d) Rs. 1,85,700

83. A person invests Rs. 2,000 at the end of each month @ of interest 6% compounding monthly, find the amount of annuity after the 10th payment is:(J-18)

(a) Rs. 20,456 (b) Rs. 20,156 (c) Rs. 20,256 (d) Rs. 20,356

84. If Rs. 10,000 is invested at 8% per year compound quarterly, then the value of the investment after 2 year is [given $(1+0.2)^8 = 1.171659$] (N-18)

(a) Rs. 11,716.59 (b) Rs. 10,716.59 (c) Rs. 117.1659 (d) None of these

85. A bank pays 10% rate of interest, interest being calculated half yearly. A sum of Rs. 400 is deposited in the bank. The amount at the end of 1 year will be(N-18)

(a) Rs. 440 (b) Rs. 439 (c) Rs. 441 (d) Rs. 442

86. A Certain money doubles itself in 10 years when deposited on simple interest. It would triple itself in(N-18)

(a) 20 years (b) 15 years (c) 25 years (d) 30 years

87. A man deposited Rs. 8,000 in a bank for 3 years at 5% per annum compound interest, after 3 years he will get(N-18)

(a) Rs. 8,800 (b) Rs. 9,261 (c) Rs. 9,200 (d) Rs. 9,000

88. If in two years time a principal of Rs. 100 amounts to Rs. 121 when the interest at the rate of r% is compounded annually, then the value of r will be(N-18)

(a) 10.5 (b) 10 (c) 15 (d) 14

89. A certain sum of money Q was deposited for 5 years and 4 months at 4.5% simple interest and amounted to Rs. 248, then the value of Q is(N-18)

(a) Rs. 200 (b) Rs. 210 (c) Rs. 220 (d) Rs. 240

90. If the difference between the compound interest compounded annually and simple interest on a certain amount at 10% per annum for two years is Rs. 372, then the Principal amount is (N-18)

(a) Rs. 37,200 (b) Rs. 37,000 (c) Rs. 37,500 (d) None of these

91. What is the net present value of piece of property which would be valued at Rs. 2 lakh at the end of 2 years? (Annual rate of increase = 5%)(N-18)

(a) Rs. 1.81 lakh (b) Rs. 2.01 lakh (c) Rs. 2.00 lakh (d) None of these

92. The effective rate of interest for one year deposit corrosponding to a nominal 7% rate of interest per annum quarterly is.(N-18)

(a) 7% (b) 7.5% (c) 7.4% (d) 7.18%

93. How much will Rs. 25,000 amount to be in 2 years at compound interest if the rates for the successive years are 4% and 5% per year.(N-18)

(a) Rs. 27,300 (b) Rs. 27,000 (c) Rs. 27,500 (d) Rs. 27,900

94. Rs. 8,000/- at 10% per annum interest compunded half yearly will become at the end of one year (N-18)

(a) Rs. 8,800/- (b) Rs. 8,820/- (c) Rs. 8,900/- (d) Rs. 9,600/-

95. The value of furniture depreciates by 10% a years, if the present value of the furniture in an office is Rs. 21,870, calculate the value of furniture 3 years ago (N-18)

(a) Rs. 30,000 (b) Rs 35,000 (c) Rs. 40,000 (d) Rs. 50,000

96. If Compound interest on a sum for 2 years at 4% per anuum is Rs. 102, then the simple interest on the same sum for the same period at the same rate will be (N-18)

(a) Rs 29 (b) Rs. 101 (c) 100 (d) Rs. 95

97. A man invests an amount of Rs. 15,860 in the names of his three sons A,B and C in such a way that they get the same amount of interest after 2,3 and 4 years respectively if the rate of interest is 5% then the ratio of amount invested in the name of A,B and C is (N-18)

(a) 6 : 4 : 3 (b) 3 : 4 : 6 (c) 30 : 12 : 5 (d) None of the above

98. If pi^2 = Rs. 96 and R= 8% compounded annually then P=_____ [J-19]

(a) Rs. 14,000 (b) Rs. 15,000 (c) Rs. 16,000 (d) Rs. 17,000

99. P= Rs. 5,000 R=15% T=$4\frac{1}{2}$ using I = $\frac{PTR}{100}$ then I will be_____. [J-19]

(a) Rs. 3,375 (b) Rs. 3300 (c) Rs. 3735 (d) None of these

100. A sum of money amounts to Rs. 6200 in 2 years and Rs. 7400 in 3 years as per S.I. then the Principal is. [J-19]

(a) Rs. 3000 (b) Rs. 3500 (c) Rs. 3800 (d) None of these

101. The effective rate of interest does not depend upon [J-19]

(a) Amount of Principal (b) Amount of Interest

(c) Number of conversion periods (d) None of these

102. In simple Interest if the principal is Rs. 2,000 and the Rate and time are the Roots of the equation

$x^2 - 11x + 30 = 0$ then the simple interest is [J-19]

(a) Rs. 500 (b) Rs. 600 (c) Rs. 700 (d) Rs. 800

103. The certain sum of money became Rs. 692/- in 2 yrs and Rs. 800/- in 5 yrs then the princip Amount is [J-19]

(a) Rs. 520 (b) Rs. 620 (c) Rs. 720 (d) Rs. 820

104. Determine the present value of perpetuity of Rs. 50,000 per month @ Rate of Interest 12% p.a. is [J-19]

(a) Rs. 45,00,000 (b) Rs. 50,00,000 (c) Rs. 55,00,000 (d) Rs. 60,00,000

105. A person wants to lease out a machine costing Rs. 5,00,000 for a 10 year period. It has fixed a rental of Rs. 51,272 per annum payable annually starting from the end of first year. Suppose rate of interest is 10% per annum compounded annually on which money can be invested To whom this agreement is favourable? [J-19]

(a) Favour for lessees (b) Favour for lessor (c) Not for both (d) Can't be determined

106. Let a person invest a fixed sum at the end of each month in an account paying interest 12% per year compounded monthly. It the future value of this annuity after the 12th payment is Rs. 55,000 then the amount invested every month is? [J-19]

(a) Rs. 4,837 (b) Rs. 4,637 (c) Rs. 4337 (d) Rs. 3337

107. The present value of a scooter is Rs. 7290. The rate of depreciaton is 10%. What was its value 3 years ago? [N-19]

(a) 10,000 (b) 10010 (c) 9990 (d) 12000

108. The difference between compound interest, compounded semi annually and simple interest on Rs. 400 at 10% p.a. for one year. [N-19]

(a) Rs. 1 (b) Rs. 28 (c) Rs. 35 (d) Rs. 40

109. If the interest of a money is equal to its one by nine, the rate of interest and time are equal then find rate of interest is. [N-19]

(a) $3\frac{1}{3}\%$ (b) $4\frac{1}{2}\%$ (c) 3% (d) 3.5%

110. 1/7 of a money is deposited at 4% per annum, 1/2 of a money deposited at 5% per annum and the remaining at the rate of 6%, then total interest gained Rs. 730 find deposit amount is. [N-19]

(a) Rs. 14,000 (b) Rs. 15,500 (c) Rs. 12,800 (d) Rs. 14,500

111. Ram deposited Rs. 12,000 in a bank at 10% per annum and remaining amount deposit in other bank at 20% per annum. if he received interest according to 14% per annum find the Ram's amount. [N-19]

(a) Rs. 20,000 (b) Rs. 22,000 (c) Rs. 30,000 (d) Rs. 25,000

112. In how much time the S.I. on a certain sum becomes 0.125 times to its principle at 10% p.a. is [N-19]

(a) 1.00 yrs (b) 1.25 yrs (c) 1.50 yrs (d) 2.00 yrs

113. If the difference between interest received by two persons A and B on the same sum of RS. 1500 for 3 years RS. 18. Then what is the difference between the two rates of interest. [N-19]

(a) 1% (b) 2.5% (c) 4% (d) 0.4%

114. In what time will a sum Rs. 800 amounts to Rs. 882 at 5% p.a. compounded annually [N-19]

(a) 1 yrs (b) 2 yrs (c) 3 yrs (d) 4 yrs

115. If the compund interest on a certain sum for 2 years at 3% p.a. is RS. 1015. What would be the simple interest on the sum at the same rate and same time is [N-19]

(a) 1005 (b) 1010 (c) 1000 (d) 1003

116. The useful life of a machine whose cost is Rs. 10,000 is 10 years. It if depreciates at 10% p.a. then the scrap value of the machine is. [N-19]

(a) 3486.70 (b) 3158.30 (c) 3500 (d) 7033

117. Find the effective rate of interest if an amount of Rs. 30,000 deposited in a bank. For 1 year at the rate of 10% p.a. compounded semi annually. [N-19]

(a) 10.05% (b) 10.10% (c) 10.20% (d) 10.25%

118. The present population of a town is 25,000. If it grows at the rate of 4%, 5%, 8% during 1st year, 2nd year, 3rd year respectively. Then find the population after 3 years. [N-19]

(a) 29,484 (b) 29,844 (c) 29,448 (d) 28,944

119. An amount 35000 with the rate of interest is 7% per annum, it is compounded on a monthly basis, then tell the effective rate of interest. [N-19]

(a) 7.22% (b) 7.64% (c) 7.0% (d) 7.5%

120. Find the future value of annuity of Rs. 500 is made annually for 7 years interest rate of 14% compound at annually. Given that $(1.14)^7 = 2.5023$ [N-19]

(a) 5635.35 (b) 5365.35 (c) 6535.35 (d) 6355.35

121. A sum was invested for 3 years as per C.I and the rate of interest for first year is 9%, 2nd year is 6% and 3rd Year is 3% p.a. respectively. Find the sum if the amount in three years is Rs. 550? [J-19]

(a) Rs. 250 (b) Rs. 300 (c) Rs.462.16 (d) Rs. 350

122. The ratio of principal and the compound interest value for three (compounded annually) is 216 :127, The rate of interest is [N-20]

(a) 0.1777 (b) 0.1567 (c) 0.1666 (d) 0.1588

123. An amount P becomes Rs. 5,100.5 and Rs. 5,203 after second and fourth years respetively, at r % of interest per anum compounded annually. Thus values of P and r are [N-20]

(a) Rs. 4,000and 1.5 (b) Rs. 5,000 and 1

(c) Rs. 6,000 and 2 (d) Rs. 5,500 and 3

124. A certain sum invested at 4% per annum compounded semi - annually amounts to Rs. 1,20,000 at the end of one year. Find the sum. [N-20]

(a) 1,15,340 (b) 1,10,120 (c) 1,12,812 (d) 1,13,113

125. Find the value of annuity of Rs. 1,000 made annually for 7 years at interest rate of 14% compounded annually. Given that $1.14^7 = 2.503$ [N-20]

(a) 10,730.7 (b) 5,365.35 (c) 8,756 (d)9,892.34

126. Find the present value of Rs. 1,00,000 to be required after 5 years if the interest rate be 9% Given that 1.09^5 = 1.5386 [N-20]

(a) 78,995.98 (b) 64,994.20 (c) 88,992.43 (d) 93,902.12

127. A five year annuity due has periodic cash flow of Rs. 100 each year. If the interest rate is 8%, the future value of this annuity is given by [N-20]

(a) (Rs.100)$\times$(Future value at rate 8% for 5 years) $\times$(0.08)

(b) (Rs.100)$\times$(Future value at rate 8% for 5 years) $\times$(1 - 08)

(c) (Rs.100)$\times$(Future value at rate 8% for 5 years) $\times$(1+.08)

(d) (Rs.100)$\times$(Future value at rate 8% for 5 years) $\times$(1/0.08)

128. A person decides to invest Rs. 1,25,000 per year for the next five years in an annuity which gives 5% per annum compounded annually. What is the approx. future value ? [N-20]

(a) 1,59,535 (b) 6,90,704 (c) 5,90,704 (d) 3,59,53

129. Find the compound interest if an amount of Rs. 50,000 is deposited in a bank for one year at the rate of 8% per annum compounded semi annually [N-20]

(a) Rs.3080 (b) Rs.4080 (c) Rs.5456 (d) Rs.7856

130. **Which of the following statement is TRUE ? (Assume that the yearly cash flows are identical for both annuities) [N-20]**

(a) The present value of an annuity due is greater than the present value of an ordinary annuity.

(b) The present value of an ordinary annuity is greater than the persent value of an annuity due.

(c) The future value of an ordinary annuity is greater than the future value of an annuity due.

(d) The future value of an annuity due is equal to future value of an ordinary annuity.

131. **Rs. 2,500 is paid every year for 10 years to pay off a loan. What is the loan amount if interest rate be 14% per annum compounded annually ? [N-20]**

(a) 15,847.90 (b) 13040.27 (c) 14,674.21 (d) 16,345.11

132. **Suppose you deposit Rs. 900 per month into an account that pays 4.8% interest, compounded monthly. How much money (rounded to nearest Rupee) will you get after 9 months ?**
(Use, if needed : $1.0004^4 = 1.0008$) [N-20]

(a) Rs.9,000 (b) Rs.8,113 (c) Rs.9,200 (d) None of these

133. **An amount is lent at a nominal rate of 4.5% per annum compounded quarterly. What would he the gain in rupees over when compounded annually ? [N-20]**

(a) 0.56 (b) 0.45 (c) 0.76 (d) None of these

134. **A stock pays annually an amount of Rs. 10 from 6th year onwards. What is the present value of the perpetuity, if the rate of return is 20% ? [N-20]**

(a) 20.1 (b) 19.1 (c) 21.1 (d) 22.1

135. **On what sum will the compound intertest at 5% per annum for 2 years compounded annually be Rs. 3,280? [N-20]**

(a) Rs. 32,000 (b) Rs. 16,000 (c) Rs. 48,000 (d) Rs. 64,000

136. **What sum of money will produce Rs. 42,800 as interest in 3 years and 3 months at 2.5% p.a. simple interest ? [N-20]**

(a) Rs. 5,26,769 (b) Rs. 3,78,000 (c) Rs. 4,22,000 (d) Rs. 2,24,000

137. **A certain sum, amounted to Rs. 575 at 5% in a time in which Rs. 750 amounted to Rs. 840 at 4% . If the rate of interest is simple , find the sum [Jan-21]**

(a) 525 (b)550 (c)515 (d)500

138. **Find the amount of compound interest, if an amount of Rs. 50000 is deposited in a bank for one year at the rate of 8% per annum compounded semi annualy [Jan-21]**

(a)Rs. 3080 (b)Rs. 4080 (c)Rs. 5456 (d)Rs. 7856

139. The population of a town increases by 2% of the population at the beginning of that year. The number of years by which the total increase in population would be 40% is.

(a) 7 years (b) 10 years (c) 17 years(approx.) (d) 19 years(approx.)

140. Find the future value of annuity of Rs. 1000 made annually for 7 years at interest rate of 14% compounded annually [Given that 1.14^7 =2.5023]

(a) Rs. 10730.7 (b)Rs. 5365.35 (c)Rs. 8756 (d)Rs. 9892.34

141. Two equal amounts of money an deposited in two banks each at 15% p.a. for 3.5 years in the bank and for 5 years in the either . The difference between the interest amounts from the banks in Rs. 144 . Find the sum.

(a) Rs. 620 (b) Rs. 640 (c) Rs. 820 (d) Rs. 840

142. The simple interest on a sum at 4% p.a. for two years is Rs. 80. Find the compound interest on the same sum for the same period.

(a) Rs. 81.6 (b)Rs. 80.8 (c)Rs. 83.2 (d) Rs. 82.3

143. Which is a better investment , 9% p.a. compounded quarterly or 9.1% p.a. simple interest

(a) 9% compounded quarterly (b)9.1% S.I

(c)Both are same (d)Cannot be said

144. The effective rate of interest corresponding to a nominal rate of 7% p.a. compounded quarterly is [Jan-21]

(a) 7.5% (b)7.6% (c)7.7% (d) 7.18%

145. Assuming that the discount rate is 7% p.a. how much would you pay to receive Rs. 200 growing at 5% annually , for ever ?[Jan-21]

(a) Rs. 2500 (b)Rs. 5000 (c) Rs. 7500 (d)Rs. 10000

146. A man invested one third of his capital at 7% one-fourth at 8% and the remainder at 10%. If the annual income is Rs. 561 the capital is [Jan-21]

(a) Rs. 4400 (b)Rs. 5500 (c) Rs. 6600 (d)Rs. 5800

147. A sum of money is lent at compound interest rate 20% p.a. two years. It would fetch Rs. 482 more if the interest is compounded half yearly. Then the sum is [JAN 21]

(a) Rs. 19800 (b)Rs. 19900 (c)Rs. 20000 (d)Rs. 20100

148. Rs. 800 is invested at the end of each month in an account paying interest 5% per year compunded monthly . What is the future value of of this annually after tenth payment? (Given that 1.005^{10} =1.0511) [JAN 21]

(a) Rs.4444 (b) Rs.8756 (c)Rs.3491 (d) Rs. 8151.43

149. When 'i' denote the actual rate of interest in decimal, and n denote the number of conversion period, the formula for computing the effective rate of interest E is given by. [JAN 21]

(a) $(1+i)^n$ (b) $(1+i)^n - 1$ (c) $1 - (1+i)^n$ (d) $(1+i)^{-n}$

150. The present value an annity immediate is the same as [JAN 21]

(a) Annuity regular for (n-1) years plus the initial receipt in the beginnng of the period.

(b) Annuity regular for (n-1) years

(c) Annuity regular for (n+1) years

(d) Annuity regular for (n+1) years plus the initial receipt in the beginning of the period

151. A sum of 7500 amounts to 9075 at 10% p.a., interest being compounded yearly in a certain time. The simple interest in) on the same sum for the same time and the same rate is [JULY-21]

(a) 1000 (b) 1250 (c) 1800 (d) 1500

152. A loan of 1,02,000 is to be paid back in two equal annual instalments. If the rate of interest is 4% p.a, compounded annually then the total interest charged (in) under this instalment plan is [JULY-21]

(a) 6160 (b) 8120 (c) 5980 (d) 7560

153. If the desired future value after 5 years with 18% interest rate is 1,50,000, then the present value in) is (Given that $(1.18)^5 = 2.2877$) [JULY-21]

(a) 63,712 (b) 65,568 (c) 53,712 (d) 41,712

154. What is the compound interest (in) on a sum of 12,600 for 16 years at 20% per annum if the interest is compounded half yearly? (Nearest to a Rupee) [JULY-21]

Note: Answer 253433.58

(a) 4271 (b) 4171 (c) 4711 (d) 4117

155. A sum of x amounts to 27,900 in 3 years and to 41,850 in 6 years at a certain rates percent per annum, when the interest compounded yearly. The value of x [JULY-21]

(a) 16080 (b) 18600 (c) 18060 (d) 16800

156. If the nominal rate of growth is 17% and inflation is 9% for the five years. Let P be the Gross Domestic Product (GDP) amount at the present year then the projected real GDP after 6 years is
[JULY-21]

(a)1.587 P (b) 1.921 P (c) 1.403 P (d) 2.51 P

157. If a person bought a house by paying Rs.45,00,000 down payment and Rs. 80,000 at the end of each year till the perpetuity, assuming the rate of interest as 16%, the present value of house (in Rs.) is given as [JULY-21]

(a) 47,00,000 (b) 45,00,000 (c) 57,80,000 (d) 50,00,000

158. let the operating profit of a manufacturer for five years is given as :

Year	1	2	3	4	5	6
operating profit(in lakh Rs.)	90	100	106.4	107.14	120.24	157.35

then the operating profit of compound annual growth rate (CAGR)for year 6 with respect to year 2 is given at [JULY-21]

(a) 9% (b) 12% (c) 11% (d) 13%

159. If discount rate 14% per annum ,then how much a company has to pay to receive Rs. 280 growing at 9% annually forever. [JULY-21]

(a) Rs.5,600 (b) Rs.2,800 (c) Rs.1,400 (d) Rs.4,200

160. The effective rate of return for 24% per annum convertible monthly is given as [JULY-21]

(a) 24% (b) 26.82% (c) 18% (d) 24.24%

161. If the cost of capital be 12% per annum, then the net present value (in nearest Rs.) from the given cash flow is given as [JULY-21]

YEAR	0	1	2	3
Operating profit (in thousand Rs.)	100	60	40	50

(a) 31048 (b) 34185 (c) 51048 (d) 21048

162. A certain sum amounts to * 15748 in 3 years at simple interest at r% p.a. The same sum amounts to 16510 at (r+2)% p.a. simple interest in the same time. What is the value of r ? [JULY-21]

(a) 10% (b) 8% (c) 12% (d) 6%

163. What is the difference in) between the simple interest and the compound interest on a sum of 8,000 for $2\frac{2}{5}$ years at the rate of 10% p.a., when the interest is compounded yearly? [JULY-21]

(a) 135.75 (b) 129.50 (c) 151.75 (d) 147.20

64. The future value of annuity of 2,000 for 5 years at 5% compounded annually is given (in nearest) as [JULY-21]

(a) 51051 (b) 21021 (c) 11051 (d) 61254

65. Mr. X wants to accumulate Rs 50,00,000 at the end of 10 years . Then how much amount is required to be invested every year if interest is compounded annually at 10%. (Given that P (10, 0 .10)= 15.9374298. [D-21]

(a) Rs 3,13,726.87 (b) 4,13,726.87 (c) Rs 3,53,726.87 (d) Rs 4,53,726.87

166. A company invests Rs 10,000 for five years to replace as equipment . How much in Rs is invested now at an interest rate of 8% p.a. in order to provide for this equipment? [D-21]

(a) 6,000 (b) 6,806 (c) 10,000 (d)11,000

167. B need to pay 5,00,000 after 10 years. He invested a sum in a scheme at 9% rate of interest compounded half yearly. How much sum (in Rs.) he invested? [D-21]

(a) 3,07,321 (b) 2,70,321 (c) 2,07,321 (d) 3,40,321

168. An amount is lent at R%. Simple interest for R Years and the simple interest was one forth of the principal amount. Then R is [D-21]

(a) 5 (b) 6 (c) 5.5% (d) 6.5%

169. A sum of a money is put as 20 % compound interest rate p.a. At which year the amount will double the original sum? [D-21]

(a) 9 (b) 6 (c) 4 (d) 3

170. The present value of 25,000 to be received after 10 years at 6% per annum compounded annually is Rs _____ . [D-21]

(a) 16,960 (b) 13,960 (c) 11,960 (d) 17,960

171. A Sum doubles in 7 years then how many years it will take to triple itself [D-21]

(a) 11 (b) 21 (c) 10 (d) 14

172. A sum of money become Rs. 15,000 in 5 years and Rs. 18,000 in 8 years then find the principal and rate. [D-21]

(a) 20,000; 20% (b) 10,000; 10% (c) 15,000; 15% (d) 50,000; 25%

173. If a person deposite some amount at 10% C.I. for 5 years then the effective rate of S.I. is [D-21]

(a) 11.21% (b) 12.21% (c) 13.21% (d) 14.21%

174. The machine whose cost is Rs. 1,10,000 depreciates at 12% p.a. for 6 years the scrap value is _____ times the cost of machine. [D-21]

(a) .44 (b) .48 (c) .43 (d) .46

175. Find the future value of annuity of Rs . 1000made annually for 7 years at interest rate of 14% compounded annually. Given that $(1.14)^7$= 2.5023 [J-22]

(a) Rs10, 730.71 (b) Rs7,730. 71 (c) Rs9,730. 71 (d) 11,730.71

176. Rs.2,500 is paid every year for 10 years to pay off a loan . What is the loan amount if the interest rate is 14% p.a. compounded annually? [J-22]

(a) Rs. 13840.27 (b) Rs. 15,040.27 (c) Rs. 13,040.27 (d) Rs.14,040.27

177. Rs. 800 is invested at the end of each month in an account paying interest at 6% per year compounded monthly. What is the future value of annuity after 10 payments [1.005^{10} = 1.0511][J-22]

(a) 7,816 (b) 8,716 (c) 8,176 (d) 7,176

178. Assuming the discount rate to be 7% p.a. How much would you pay to receive Rs.200 growing at 5% annually forever? [J-22]

(a) Rs.5,000 (b) Rs.10,000 (c) Rs. 7,500 (d) Rs.12,500

179. The present value of Rs. 2000 for 8 years at the rate of 6% p.a. is ? Given 1.06^8= 1.59385 [J-22]

(a) Rs1,254 (b) 1,054 (c) Rs 3,054 (d) Rs. 2,054

180. The annual rate of simple interest is 12.5% . In how many years will the principal double?

(a) 7 years (b) 8 years (c) '10 years (d) 9 years [J-22]

181. There is a 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 same rate? [J-22]

(a) Rs2,260 (b) Rs.3,972 (c) Rs. Rs. 3,279 (d) Rs2,679

182. An investment is earning compound interest. Rs 100 is invested in the year 2 accumulated to Rs. 105 by Year 4. If Rs.500 is invested in the year 5, how much will it become by year 10? [J-22]

(a) Rs.364.80 (b) Rs 464.80 (c) Rs564.80 (d) Rs.664.80

183. A company creates, a sinking fund of Rs. 2,00,000 in a bank account for 15 years that offers interest rate 6%p.a. The yearly payment to be paid by the company is? (1.06^{14}= 2.209) [J-22]

(a) Rs8,149 (b) Rs 8,592 (c) Rs9,854 (d) Rs 11,549

184. An investor is saving to pay off an obligation of Rs. 15,250 which will be due in seven years, if the investor is earning 7.5% Simple interest per annum, the amount deposited to meet obligation is ? [J-22]

(a) Rs. 8,000 (b) Rs .9,000 (c) Rs .10,000 (d) Rs. 11,000

185. Ramesh invests Rs 20,000per year in a fund, which earns 9% per year, for next ten years. What would be the accumulated value of the investment upon payment of the last instalment ? (Given $1.09^{10} = 2.36736$) [J-22]
(a) Rs. 3,83,764.96 (b) Rs. 3,03,858.59 (c) Rs. 2,03,858.59 (d) Rs. 4,05,858.59

186. Virat made an investment of Rs. 15,000 in a scheme and at the time of maturity the amount was Rs. 25,000. If the CAGR for the investment is 8.88% then calculate the approximate number of years for which the amount was invested? [J-22]
(a) 6 years (b) 7 years (c) 6.6 years (d) 7.7 years

187. Madahvi takes a loan of Rs.50,000 from ABC bank. The rate of interest is 10% p.a. .The first installment will be paid at the end of year 5. Determine the amount (in Rs.) of equal instalment, if Madahavi wishes to repay the amount in 5 instalments. [J-22]
(a) Rs. 19,310 (b) Rs. 19,410 (c) Rs. 19,510 (d) Rs. 19,610

188. Rahul deposits Rs.3,000 at start of each quarter in his savings account. If the account earns the interest of 5.75%p.a. compounded Quarterly, how much (in Rs.) will he have at end of 4 years ($1.014375^{16} = 1.25696$) [J-22]
(a) Rs. 54,397.71 (b) Rs. 58,397.71 (c) Rs. 68,397.71 (d) Rs. 63,397.71

189. A machine worth Rs. 4,90, 740 is depreciated at 15% on its opening value each year. When it value would reduce to Rs. 2,00,750. [D-22]
(a) 5 years, 5 months (b) 5 years, 6 months
(c) 5 years, 7 months (d) 5 years, 8 months

190. If Rs. 64, Amount to Rs. 83.20 in 2 years, what will be Rs. 86 amounts to in 4 years at the same rate per annum? [D-22]
(a) Rs. 127.60 (b) Rs. 147. 60 (c) Rs. 145.54 (d) 117.60

191. Raju invests Rs. 20,000 every year in deposit scheme starting from today for next 12 years. Assuming that interest rate on this deposit is 7% per annum compounded annually. What will be the future value of this annuity? Given that $(1+0.07)^{12} = 2.22521959$. [D-22]
(a) Rs. 540,526 (b) Rs. 382, 813 (c) 643,483 (d) 357, 769

192. Mr. A invested Rs. 10,000 every year for next three years at the interest rate of 8 per cent per annum compounded annually. What is the future value of the annuity?[D-22]
(a) 32644 (b) 32464 (c) 34264 (d) 36442

193. Mr. Prakash money in two schemes 'A and B offering compound at the rate of at a rate of 8% and 9% per annum respectively. If the total amount of interest accrued through the two schemes together in two years was Rs. 4818.30 and the total amount was Rs. 27,000? What was the amount invested in scheme A? [D-22]
(a)Rs. 12,000 (b) Rs. 12,500 (c) Rs. 13,000 (d) Rs. 13,500

194. A sum of money invested of compound interest doubles itself in four years. In how many years it becomes 32 times of itself at the same rate of compound interest.[D-22]
(a)12 years (b) 16 years (c) 20 years (d) 24 years

195. The difference between compound interest and simple interest on an amount of Rs. 15,000 for 2 years is Rs.96. What is the rate of interest per annum?[D-22]
(a) 9% (b) 8% (c) 11% (d) 10%

196 RS.5,000 is invested every month end in account paying interest @12% Compounded monthly What is the future value of this annuity just after making 11th payment?
(Given that $(1.01)^{11}=1.1156$)[D-2

(a) Rs. 57,800 (b) Rs 56,100 (c) 56,800 (d) 57,100

197. A sum of money doubles itself in 4 years at certain compound interest rate. In how many years his sum will become 8 times at the same compound impound interest? [D-22]

(a) 12 years (b) 14 years (c) 16 years (d) 18 years.

198. Sinking fund factor is reciprocal of:[D-22]

(a) Present value interest factor of single cash flow
(b) Present value interest factor of an annuity.
(c) Future value interest factor of an annuity.
(d) Future value interest factor of a single cash flow

199. A farmer borrowed Rs 3600 at the rate of 15% per annum. At the end of 4 years, he cleared this account by paying Rs. 4000 and a cow. The cost of cow is : [D-22]

(a) Rs. 1000 (b) Rs. 1200 (c) Rs. 1550 (d) Rs. 1760

200. How much amount is required to be invested every year so to acculmate Rs. 5,00,000 at the end of 12 year if interest is compounded annually at 10% (where A (12.01)= 21.384284) [D-22]

(a) Rs. 23,381.65 (b) Rs. 24,385.85 (c) Rs. 26,381.65 (d) Rs. 28,362.75

201. The effective annual rate of interest corresponding to a normal rate of 6% per annum payable half yearly.[D-22]

(a) 6.06% (b) 6.07% (c) 6.08% (d) 6.09%

202. 10 year ago, the earnings per share (EPS) of ABC ltd was Rs. 5. Its EPS for this year is Rs. 22. Compute at what the rate, EPS of the company grow gratually? [D-22]

(a) 15.97% (b) 16.77% (c) 18.64% (d) 14.79%

[CH-4] [MATHEMATICS OF FINANCE]

1	b	42	b	83	a	124	a	165	a
2	b	43	a	84	a	125	a	166	b
3	c	44	a	85	c	126	b	167	c
4	a	45	d	86	a	127	c	168	a
5	a	46	a	87	b	128	b	169	c
6	c	47	a	88	b	129	b	170	b
7	a	48	c	89	a	130	a	171	d
8	b	49	a	90	a	131	b	172	b
9	c	50	a	91	a	132	d	173	b
10	b	51	c	92	d	133	d	174	d
11	b	52	c	93	a	134	a	175	a
12	b	53	c	94	b	135	a	176	c
13	a	54	c	95	a	136	a	177	c
14	a	55	c	96	c	137	d	178	b
15	c	56	c	97	a	138	b	179	a
16	d	57	b	98	b	139	c	180	b
17	b	58	c	99	a	140	a	181	b
18	b	59	b	100	c	141	b	182	c
19	c	60	c	101	a	142	a	183	b
20	c	61	b	102	b	143	a	184	c
21	b	62	c	103	b	144	d	185	b
22	c	63	c	104	b	145	d	186	a
23	c	64	a	105	a	146	c	187	a
24	a	65	b	106	c	147	c	188	a
25	b	66	b	107	a	148	d	189	b
26	a	67	a	108	a	149	b	190	c
27	b	68	a	109	a	150	a	191	b
28	a	69	a	110	a	151	d	192	b
29	a	70	b	111	a	152	a	193	a
30	b	71	a	112	b	153	b	194	c
31	b	72	a	113	d	154	b	195	b
32	b	73	a	114	b	155	b	196	a
33	a	74	d	115	c	156	a	197	a
34	c	75	a	116	a	157	d	198	c
35	a	76	a	117	d	158	b	199	d
36	b	77	b	118	a	159	a	200	a
37	b	78	b	119	a	160	b	201	d
38	c	79	d	120	b	161	d	202	a
39	c	80	c	121	c	162	b		
40	c	81	b	122	c	163	d		
41	d	82	a	123	b	164	c		