

NATIONAL MANAGEMENT COLLEGE, THUDUPATHI.
CA FOUNDATION
PAPER – 3: BUSINESS MATHEMATICS, LOGICAL REASONING AND STATISTICS
Revision test 3 (22.03.2022)

Time Allowed : ½ hour

Maximum Marks: 25

1) The present value of a scooter is Rs. 7290. The rate of depreciation is 10%. What was its value 3 years ago?

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

2) The difference between compound interest, compounded semi annually and simple interest on Rs.400 at 10% p.a. for one year.

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

3) 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.

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

4) $\frac{1}{7}$ of a money is deposited at 4% per annum , $\frac{1}{2}$ 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

- (a) Rs. 14000 (b) Rs. 15500
(c) Rs. 12800 (d) Rs. 14500

5) Ram deposited ₹12000 in a bank at 10% per annum and remaining amount deposit another bank at 20% per annum. if he received interest according to 14% per annum find the Ram's amount.

- (a) Rs. 20000 (b) Rs. 22000
(c) Rs. 30000 (d) Rs. 25000

6) 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.

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

7) 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.

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

8) In what time will a sum Rs. 800 amounts to Rs. 882 at 5% p.a. compounded annually

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

9) 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.

- (a) 1% (b) 2.5% (c) 3% (d) 0.4%

10) The useful life of a machine whose cost is Rs. 10,000 is 10 years. If it depreciates at 10% p.a. then the scrap value of the machine is.

- (a) Rs. 3486.70 (b) Rs. 3158.30 (c) Rs. 3500 (d) Rs. 7033

11) The Effective Rate of interest does not depend upon

- (a) Amount of Principal (b) Amount of interest
(c) Number of Conversion periods (d) None of these

12) 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 _____

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

13) Present value takes.....?

- (a) Compounding rate (b) Deflation rate
(c) Inflation rate (d) Discounting rate

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

- (a) Rs. 4,8,37 (b) Rs. 4,637 (c) Rs. 4,337 (d) Rs. 3337

15) Mr. X wants to accumulate Rs. 50,00,000 at end of 10 years. Then how much amount is required to be invested every year, if the interest is compounded annually at 10%?

- a) 3,13,726.87 b) 4,13,726.87 c) 3,53,726.87 d) 4,53,726.87

16) If the nominal rate of interest is 10% per annum and there is quarterly compounding, the effective rate of interest will be:

- a) 10% per annum
- b) 10.10% per annum
- c) 10.25% per annum
- d) 10.38% per annum

17) If nominal rate of return is 10% per annum and annual effective rate of interest is 10.25% per annum, determine the frequency of compounding:

- a) 1
- b) 2
- c) 3
- d) None of the above

18) What is the present value of a perpetuity with an annual year-end payment of \$1,500 and expected annual rate of return equal to 12 percent?

- A) \$14000
- b) \$13500
- c) \$11400
- d) \$12500

19) To triple \$1 million, Mika invested \$1million today at an annual rate of return of 9 percent. How long will it take Mika to achieve his goal?

- A) 15.5 years
- B) 13.9 years
- C) 12.7 years
- D) 10 years

20) Which of the following is the formula for compound value?

- a) $FV = P(1 + i)^n$
- b) $FV = (1 + i)/P$
- c) $FV = P/(1 + i)^n$
- d) $FV = P(1 + i)^{-n}$

21) A sum of money gets doubled in 5 years at X% simple interest. If the interest was Y%, the sum of money would have become ten-fold in thirty years. What is $Y - X$ (in %)

- a) 10
- b) 5
- c) 8
- d) none of these

22) Sinking fund factor is the reciprocal of:

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

23) The difference between present value of cash inflows and present value of cash outflows is known as:

- a) Gross present value
- (b) Capital
- (c) Net present value
- (d) None of these

24) 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?

(a) Favour for lessee

(b) Favour for lessor

(c) Not for both

(d) Can't be determined

25) A Maruti Zen cost Rs. 3,60,000. Its price depreciates at the rate of 10% of a year during the first two years and at the rate of 20% in third year. Find the total depreciation

a) `Rs.1,26,720

(b) Rs. 1,15,620

(c) Rs. 1,25,000

(d) Rs. 1,10,520