

Business Mathematics - 11th Class Business Math Full Book Short Questions Preparation

Q1. Convert 23 into binary number system.

Ans 1: 23 = (10111)2

Q2. Find domain and range for relation. {(1,3),(1,4),(1,-1),(1,-2)

Ans 1: Domain of the relation = {1}

Because domain is first element of every order pair in relation Range of relation = {-1,-2,3,4} Beacuse range is second element of every order pair in relation.

Q3. Define Principal.

Ans 1: Principal: The amount of money that is initially lent or invested in any business deal is called the principal.

Q4. Define an equation.

Ans 1: Equation: Equation in Mathematics is way of expressing equality of two expressing on the basis of logic and number. Example: $x + 2 = 5 \times 2 + 3x + 2 = 0$

Q5. Define matrix.

Ans 1: Matrix: Matrix is a block presentation of two-way classified set of information arranged in rectangular form of rows and columns.

Q6. Define function.

Ans 1: Function: A function is a rule taht assigns to each input value exactly one output value.

Example: When some money is invested at a particular interest rate, the interest I depends on the length of time T for which money is invested.

Q7. Define inplicit function with one example.

Ans 1: A function or relation in whihe the dependent variableis not isolated on one side of the equation.

Example: $x^2 + xy - y^2 = 1$ represent an implicit relationship.

Q8. Write the name of any two field in which annuity is used.

Ans 1: Several modern businesses as given blow depend on the concept of an annuity:
Ans 2: i) Business of insurance companies.
Ans 3: ii) Business of leasing companies.
Ans 4: iii) Business of goods sold on installments.
Ans 5: iv) Business of bonds or debentures
Q9. Define annuity due.
Ans 1: Annuity Due:An annuity is considered as to be annuity due if every payment is made at the beginning of each payment period and continue for a definite period. This annuity is also called beginning mode annuity.
Q10. Write down rule of proportion that helps in finding missing term of given proportion.
Ans 1: Rule of proportion that helps in finding missing term of given proportion is: Product of extreme = Product of mean
Q11. Express 35:20:45 lowest form.
Ans 1: 35:20:45 "Dividing" by "5"7 : 4 : 9
Q12. Define Ratio.
Ans 1: Ratio:The ratio is a relation between two positive quantities with same units. The ratio usually indicates relationship how one quantity is of the other.
Ans 2: Explanation:If "a" and "b" are two uniform quantitative information expressed in similar units, then the comparison "a" vs "b" may further be written as "a/b" is called ratio.
Q13. Define ordinary annuity.
Ans 1: Ordinary Annuity:An annuity is considered as to be ordinary annuity if every payment is made at the end of each payment period and continues for a definite period. This annuity is also called ending mode annuity.
Q14. Define perpetuity.
Ans 1: Perpetuity:An annuity is considered as to be perpetuity if each payment is made at the end of each payment period and continues for indefinite period.
Q15. Define variable quantities.

- **Ans 1:** Variable Quantity: A quantity that can assume any of a set of values:
- Ans 2: Variable: A variable is a symbol that can be replaced by any one of a set of different numbers.
- **Ans 3:** Example: $y = f(x) = x + 6 \ln above relation x is independent variable whereas y is dependent variable.$
- Q16. Define row matrix and give one example.

Ans 1: Row Matrix: A matrix having single row but having any number of columns is called row matrix.

Example: A = [3 4 5 6]

a row matrix, Row matrix is also called row vector.

Q17. Define identity matrix.

Ans 1: The unit of multipliative identity of matrices are defined as. A scalar matrix in which principal diagonal element sare equal to "1" is called a unit or identity matrix"

- Q18. Define binary number system shortly.
 - Ans 1: Binary Number System: The number system with base 2 is known as binary number system.
 - **Ans 2: Importance:** The number system with base 2 is of particular importance due to its application in computer. The binary number "0" suggest to computer "off" and "1" "on".
 - Ans 3: Digits Involved: In binary number system only two digits "0" and "1" involve.
- Q19. What is square matrix.
 - Ans 1: Square Mattrix: A matrix having equal number of rows and column is called square matrix.
- Q20. Explain the annuity certain.
 - **Ans 1:** Annuity Certain:A financial instrument that provides a stream of payments for a predetermining number of years. An annuity certain will continue a stream of payment remitted to the annuitant's beneficiary or estate, if the annuitant dies before the payment term ends.