

Business Mathematics - 11th Class Business Math Chapter 3 Short Questions Preparation

Q1. Define re	eciprocal ec	uation.
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Ans 1: Reciprocal Equation: Equation of the formax4+ bx3+ cx2+ bx + a = 0 is called reciprocal equation. The point to remember for reciprocal equation is that the coefficient from the beginning and end are equal. Example: $x^4 + 4x^3 + 5x^2 + 4x + 1 = 0$

Q2. 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: $x + 2 = 5 \times 2 + 3x + 2 = 0$

Q3. What are simultaneous equations?

Ans 1: Simultaneous Equation: A set of equation (at least two equation) developed in same problem involving same quantities (unknowns) is called set of simultaneous equation.

Ans 2: Example: 5x + 2y = 33, 10x - 4y = 54

Q4. Write any two methods of finding solutions of a quadratic equation.

- Ans 1: Quadratic equation can be solved by following methods:
- Ans 2: i) Methods of factorization.
- Ans 3: ii) Methods of completing square
- Ans 4: iii) Using quadratic formula

Q5. Define an exponential equation.

Ans 1: Exponential Equation: The equation in which the required variable arises as the exponent are called exponential equations.

Ans 2: Example:i) 32x+9=3x ii) 5x+5-x=3

Q6. Define degree of the equation.

Ans 1: Degree of the Equation: The degree of an equation is the highest power of its monomials (individual terms) with non-zero coefficients. The degree of a term is the sum of the exponents of the variable that appear in it, and thus non-negative integer

Ans 2: Examples: x3+ 3x2+ 2 = 0 Degree of equation is "3"

Ans 3: ii) x2+ 2x2y2+ y2= 0 Degree of equation is "4"

Q7. Define an extraneous root of an equation.

Ans 1: Extraneous Root: Those roots do not satisfy the original equation and known as extraneous roots.

Q8. Write any two basic arithmetic operations.

Ans 1: The four basic mathematics operations are:

Ans 2: i) Addition

Ans 3: 2) Subtraction

Ans 4: 3) Multiplication

Ans 5: 4) Division

Q9. What is meant by conditional equation?

Ans 1: Conditional Equation: An equation that is true for some values of variables and not true of others.

Ans 2: Example: The equation 2x-14=0 is conditional because it is only true for x=7 Other values for x do not satisfy the equation.

Q10. Define quadratic equation.

Ans 1: Quadratic Equation: An algebraic equation in one or more unknowns with maximum power of unknown as two is called quadratic equation.

Ans 2: Standard Form: The standard form of quadratic equation in single unknown x is given as under: $ax^2 + bx + c = 0$ Where a,b and c are constant and a = 0