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

Q1. 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 + 6In above relation x is independent variable whereas y is dependent variable.

Q2. 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.

Q3. Define reciprocal equation.

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:x4+ 4x3+ 5x2+ 4x + 1 = 0

Q4. 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: ax2+ bx + c = 0Where a,b and c are constant and a = 0

Q5. 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

Q6. 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 x2+ 3x + 2 = 0

Q7. 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

Q8. 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"

Q9. Define an extraneous root of an equation.

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

Q10. 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