

# 38 Lecture - CS302

## Important Subjective

### 1. Define an equation.

Answer: An equation is a mathematical statement that asserts the equality of two expressions. It consists of a left-hand side, a right-hand side, and an equals sign between them.

### How is an equation used in solving a problem?

Answer: Equations are used to describe relationships between variables and to solve problems in a wide range of fields, including physics, engineering, and finance. Solving an equation involves finding the values of the variables that make both sides of the equation equal.

### What is the purpose of an equals sign in an equation?

Answer: The equals sign is used to separate the left-hand side and right-hand side of an equation and to indicate that they are equal.

### What is the difference between an equation and an expression?

Answer: An equation is a statement that asserts the equality of two expressions, while an expression is a combination of numbers, variables, and mathematical operations.

### What is the solution of an equation?

Answer: The solution of an equation is the value of the variable that makes both sides of the equation equal.

### What is the process of solving an equation?

Answer: The process of solving an equation involves finding the values of the variables that make both sides of the equation equal.

### What is a linear equation?

Answer: A linear equation is an equation in which the highest power of the variable is one.

### What is a quadratic equation?

Answer: A quadratic equation is an equation in which the highest power of the variable is two.

### What is a simultaneous equation?

Answer: A simultaneous equation is a set of equations with more than one unknown variable, where the solution must satisfy all the equations at the same time.

### What is an open sentence in mathematics?

Answer: An open sentence in mathematics is a statement that contains one or more variables and becomes a true or false statement when specific values are substituted for the variables.