1. What is C language?

C is a general-purpose, structured, high-level programming language used to develop system software, operating systems, and applications.

2. Applications of C Programming

- Used to develop core parts of Operating Systems (Windows, Linux, macOS)
- Used in Embedded Systems like washing machines, microwave ovens, printers
- Used for game engine development
- Used to develop database engines (Example: MySQL)
- Used to create IoT device and sensor programs
- Used to develop desktop applications

3. What is a Variable?

A variable is a name given to a memory location that stores data which can change during program execution.

4. Data Types in C Language

Data types in C are classified into four categories:

1. **Basic Data Types**
   - int
   - float
   - double
   - char

2. **Derived Data Types**
   - Arrays
   - Pointers
   - Structures
   - Unions
   - Functions

3. **Enumeration Data Type**
   - enum → Used to define a set of named integer constants

4. **Void Data Type**
   - void → Represents no value

5. What is a Format Specifier?

Format specifiers tell the compiler which type of data to read or print in input/output functions.

- **Examples:** %d, %f, %c, %s