1. What is language?

C is a general purpose and high performance Programming language developed by Dennis Ritchie at Bell labs in the early 1970s. It is one of the most important and widely used languages in computer science because of its Speed, efficiency, and ability to interact closely with computer hardware.

One of the biggest advantages of c is its Portability. C programs can run on different Computer Systems with little or no changes.

2. Applications of & programming language?

Ans:

Main Applications of C programming.

(i) operating systems.

(ii) Embedded systems.

(iii) Games and Graphics

(iv) compilers and interpreters

(v) Database Software

(vi) General purpose Applications.

(i) operating systems: c is used to make Parts of operating system like windows, Linux, and mobiles OS.

(ii) Embedded Systems: It is used for small devices like washing machines, microwaves, remote controls, Cars, and IOT devices.

(ii) Games and Graphics: some game engines and fast graphics programs are written using C. because it is very fast.

(iv) Compilers and interpreter: The tools that help to run other Programming languages like Compilers are made using c.

(v) Database Software: Popular databases like MySQL are built using C.

(vi) General applications: C is used to create many applications that need high speed and efficiency.

3. What is variable?

Ans: A variable is a name given to a memory location in a program where we can Store data.

It acts like a container that holds a value, and this value can change while the program is coming.

Example:

    int age = 20;

Here:

- age is the variable.
- 20 is the value stored in the variable.
- int tells the type of data (integer).

4. What are different data types in C Programming?

Ans:

C has three types of data types:

1. Basic [int, float, Char, double)
2. Derived (array, Pointer, Structure, union)
3. user-defined (Struct, enum, typedef)

Basic data types are most commonly used.

- Int : store whole numbers. Ex (10,-5)
- Float : Store decimal numbers. Ex: (3.14)
- Double : stores bigger decimal numbers.
- Char: stores a single character. Ex:('A':9').

5. what is format specifier?

- A format specifier is a symbol used in C Programming to tell the computer what type of data we want to print or read.
- It is mainly used in functions like printf() and scanf().

Example:

    int age = 18;

    Printf ("Age: %d', age);

Here:

    %d is the format specifier for an integer.