

1, what is c language ?

- C language is a general-purpose, structured, and procedural programming language developed by Dennis Ritchie in 1972 at Bell Labs. It is widely used for system software, operating systems, and embedded programming.

2, what are the applications of c programming ?

- The applications of c programming are:
- Operating Systems Development
- Embedded Systems and Microcontrollers
- Compilers and Interpreters
- Database Systems Cores
- Network Programming
- Game Engines and Graphics Libraries
- System Utilities and Tools
- Scientific and High-Performance Computing.

Example:

UNIX operating system.

3, what is variable ?

- A variable is a name given to a memory location that stores a value.

It allows the programmer to use and change data during program execution.

Example:

```
Int number = 10;
```

Here, number is a variable storing the value 10.

4, what are the different data types in c programming ?

•C language has different data types used to store various kinds of data.

Main data types:

1. Int – stores integers (e.g., 10, -5)
2. Float – stores decimal numbers (e.g., 3.14)
3. Char – stores single characters (e.g., 'A')
4. Double – stores large decimal numbers (e.g., 12.3456)
5. Void – represents no value or empty type.

5, what is format specifier ?

•A format specifier is a symbol used in C to tell the compiler what type of data is being printed or read.

Example:

%d → for integers

%f → for floating-point numbers

%c → for characters

%s → for strings

Example:

```
Printf("Age = %d", age);
```