1) what is c language?

* The c programming language is a general purpose; procedural, and imperative computer programming language developed in the early 1970s by Dennis Ritchie at Bell Laboratories.

* It was Primarily designed to write the unix operating System and has since become one of the most widely used and influential programming Languages in the world.

* C is often considered a "mid-level" language because it combines features of both high-level and low-level Languages.

* Supports structured programming, which makes programs.easy to read, debug and modify.

2) Applications of c programming?

* C programming is used for a wide range of applications, including operating Systems (like Linux and windows), embedded systems (in devices like microwares and cars), compilers and interpreters, database management systems (such as MySQL), and game development.

* Its efficiency and low level control also make it ideal for high-Performance computing, scientific application, and network Programming.

* used to develop device drives and Hardware Level programming.

3) What is variable?

* A variable in C is a named storage location in the computer's memory used to store data that can be accessed and modified during program execution.

* Each variable has a data it can hold (integer, character, or decimal number), its size in memory, and the operations that can be applied to it.

* It makes programs dynamic and flexible.

* must be declared before use.

Examples:-

    int age = 25;   // integer

    float price = 99.99;   // floating

    char grade = 'A';   // character

4) What are different types in C programming?

C has three main categories of data types;

1) Primary (Basic) data types.

• Int ⟶ Stores integers.

• float ⟶ stores decimal numbers.

• double ⟶ stores large decimal numbers.

• char ⟶ stores a single character.

2) Derived data types

• Arrays.

• Pointers.

• functions.

• structures

• unions.

3) user defined data types.
- stuct.
- union
- enum.
- typedef.

5) what is format specifier?

*A format specifier is a symbol used in c to tell the. compiler what type. of data you want to Print or read using printf and scanf.

* used inside printf and scanf.

* Specifies the type of data (int, float, char, etc.)

* Begins with % symbol.

* Helps the compiler interpret data correctly

* Necessary for output / input operations.

data type	format Specifier
Int	%d or %i
float	%f
double	%.3f
char	%c
string	%s
long int	%ld
unsigned int	%u