1) What is C Programming?

C programming is a general-purpose, procedural programming language developed by Dennis Ritchie in 1972 at Bell Labs.
It is used to write system software and application software and allows direct access to memory using pointers, making it very fast and efficient.

2) Features of C Programming

Simple – Easy to learn and use

Fast & Efficient – Executes programs quickly

Portable – Programs can run on different machines

Structured Language – Uses functions and blocks

Low-level Access – Supports pointers and memory manipulation

Rich Library – Provides many built-in functions

Modular – Code can be divided into functions

Extensible – New functions can be added

3) Applications of C Programming

Operating Systems (e.g., UNIX, Linux)

Embedded Systems

System Software

Compilers and Interpreters

Device Drivers

Database Systems

Game Development

Networking Applications

4) Difference between Compiler and Interpreter

Aspect	compiler	Interpreter
Translation	Converts entire program at once	Converts program line by line
Output	Generates executable file	No separate executable file
Execution Speed	Faster execution	Slower execution
Error Detection	Shows errors after compilation	Shows errors one line at a time
Examples	C,C++	Python, JavaScript