**Assignment-1**

1. Why do computers understand only binary language?
2. What is the full form of IDE?
3. What is the difference between a text editor and a code editor?
4. What are the steps to develop software using the C language?
5. Explore by your own
   1. What is the latest version of C Language?
   2. Who developed C Language?
   3. What is the difference between System and Application Software?
   4. How to convert a number from a decimal number system to a binary number system?

Ans1: As we know a computer is a hardware device and computer is made out of switches and wires, mainly. The switches are transistors, which can be switched on or off by changing the voltage difference across them. A computer's main memory consists of transistors that switch between high and low voltage levels - sometimes 5V, sometimes 0. So it is easy for computer to understand binary language because it contains only 2 symbols i.e. 1 or 0.

Ans2 : Integrated Development Environment is the full form of IDE.

Ans3: Text editors provide normal text environment example notepad is a text editor but only you can understand that code written in the notepad but computer understand it. According to you it can be a c program but for pc it is not. We can write a code in text editor but can not run it.

While if we talk about code editor it provide coding environment for programmer , it provides many shortcuts and a easy , convenient environment for coding and software development.

Ans4: Steps to develop a software in c language :

Step 1- Write a source code in an IDE or in code editior.

Step 2- Preprocesses is done by pre-processor.

Step 3- It is compiled by a compiler.

Step 4- It is lined by a linker.

Step 2,3,4 is known as build.

Step 5- Then it is loaded by a loader.

Step 6- It is executed by saving it with “.exe” extention.

Step 5,6 is called Run.

Hence, required software is developed.

Ans 5:

1. Latest version of c language is c17(ISO/ 9899:2018).
2. Dennis Ritchie developed c programming in 1972.
3. The system software is a set of programs that controls the internal functioning of the computer system.  System software controls the internal working of a computer

Application Software is a type of software that is mainly developed to perform a specific task as per the user's request. It acts as an interface between the end-user and system software. Application software is not used to perform basic operations of a computer system like system software.

1. Steps to to convert a number from a decimal number system to a binary number system:
2. Divide the number by 2.
3. Get the integer quotient for the next iteration.
4. Get the remainder for the binary digit.
5. Repeat the steps until the quotient is equal to 0.