

**1. Why do computers understand only binary language?**

**Ans.** Since computer is an electronic device, it works only when current passes through the circuit. For transmission of current through the circuit we need switch and switch has only two states. Which are on/off state, where 1 indicates switch on and 0 indicates switch is off. For every alphabet of English have 7 digits binary code where number seven is number of wires through which current passes when switch is on. Machine can't understand any instructions or code. It understands only binary code, so it converts all instructions to binary form for better understanding of human code.

**2. What is the full form of IDE?**

**Ans.** IDE stands for the integrated development environment (IDE). IDE Provides an Environment consolidated for the Programmer to write a Computer Program.

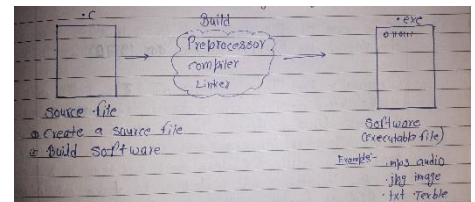
**3. What is the difference between a text editor and a code editor?**

**Ans.** A text editor is comparable to a code editor; however, a code editor offers significantly more functionality. Text editors with sophisticated built-in capabilities and specific functionalities designed to ease and speed up the process of editing code are referred to as code editors.

**4. What are the steps to develop software using the C language?**

**Ans.** • Problem Definition.

- Problem Analysis.
- Algorithm Development.
- Coding & Documentation.
- Testing & Debugging.
- Maintenance.

**5. Explore by your own****a. What is the latest version of C Language?**

**Ans.** C17 / June 2018

**b. Who developed C Language?**

**Ans.** C language developed by Dennis Ritchie.

**c. What is the difference between System and Application Software?**

**Ans.** System Software vs Application Software

S.No	System Software	Application Software
1	System software is used for operating computer hardware	Application software is used by users to perform a specific task.
2	System software is installed on the computer when the operating system is installed	Application software is installed according to the user's requirements
3	In general, the user does not interact with system software because it works in the background.	In general, the user interacts with application software.
4	System software can run independently. It provides a platform for running application software.	Application software can't run independently. They can't run without the presence of system software
5	Some examples of system software are compiler, assembler, debugger, driver, etc.	Some examples of application software are word processors, web browsers, media players, etc

d. How to convert a number from a decimal number system to a binary number system?  
Ans.

The image shows a handwritten table on lined paper. The first row lists powers of 2 from  $2^7$  to  $2^0$ . The second row lists their corresponding decimal values: 128, 64, 32, 16, 8, 4, 2, 1. Below this, two rows show the binary representation of the decimal numbers 47 and 29. For 47, the bits are 0, 0, 1, 0, 1, 1, 1, 1. For 29, the bits are 0, 0, 0, 1, 1, 1, 0, 1. The 29 row is underlined.

	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$
	↓	↓	↓	↓	↓	↓	↓	↓
	128	64	32	16	8	4	2	1
47 =	0	0	1	0	1	1	1	1
29 =	0	0	0	1	1	1	0	1