**1. What is software?**

**Ans:** Software is a set of instructions, data or programs used to operate computers and execute specific tasks.

**2. What is software engineering?**

**Ans:** Software engineering is a detailed study of engineering to the design, development and maintenance of software.

**3. Explain types of software?**

### Ans: A).System Software : System software is software that directly operates the computer hardware and provides the basic functionality to the users as well as to the other software to operate smoothly.

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### B). **Application Software :** Software that performs special functions or provides functions that are much more than the basic operation of the computer is known as application software. Or in other words, application software is designed to perform a specific task for end-users. It is a product or a program that is designed only to fulfill end-users’ requirements.

### 4. What is SDLC? Explain each phase of SDLC.

### Ans: SDLC stands for software development life cycle.

### SDLC is a structured process that enables the production of high-quality, low-cost software, in the shortest possible production time.

### SDLC involves:-

### 1. Analysis

### 2. Designing

### 3. Development

### 4. Testing

### 5. Deployment

### 6. Maintenance

### ->Planning and analysis involves checking the market need of the project. It involves defining the purpose of the application.

### This step is important and it helps to see that the project doesn't deviate from its original purpose and plan.

### ->Designing involves seeing how the application will work.

### As the name suggests designing has to do with the user interface and design of the application. It involves managing how the application will appear and respond to input. Designing has to do with the front end development.

### ->Software development has to do with actual writing of the program and involves use of back end development languages. In this case source code is managed.

### >> Software testing as the name suggests has to do with testing of the application, whether the application meets the requirements and the goal that was set during the analysis phase. Software testing is automated or manually done. Software testing involves finding errors and glitches and has to do with fixing those.

### -> Deployment has to do with introducing the application to the market or launching it to the users.

### ->In the phase of Maintenance, development cycle is almost finished but the maintenance part is still important. In this phase, the other bugs discovered by user which weren't found during testing, are resolved and as the name suggests this phase has to do with maintenance of the launched application.

### 5. What is DFD?

### Ans: A data flow diagram (DFD) is a graphical or visual representation using a standardized set of symbols and notations to describe a business's operations through data movement.

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**6. What is Flow chart?**

**Ans:** Flowcharts are nothing but the graphical representation of the data or the algorithm for a better understanding of the code visually. It displays step-by-step solutions to a problem, algorithm, or process.

Other Way : A flowchart is a diagrammatic representation of an approach. This draws out all the steps of your approch in order.

**7. What is Use case Diagram?**

**Ans:** A use case diagram is a way to summarize details of a system and the users within that system. It is generally shown as a graphic depiction of interactions among different elements in a system. Use case diagrams will specify the events in a system and how those events flow, however, use case diagram does not describe how those events are implemented.