**1. What is software? What is software engineering?**

* **Software**: A set of programs or instructions that tell a computer what to do. Example: MS Word, WhatsApp, Chrome.
* **Software Engineering**: It is the process of designing, developing, testing, and maintaining software in a systematic and disciplined way.

**2. Explain types of software**

* **System Software** – Helps run the computer hardware (e.g., Windows, Linux, macOS).
* **Application Software** – Helps users perform tasks (e.g., MS Office, Paytm, WhatsApp).
* **Utility Software** – Small programs for maintenance (e.g., Antivirus, Disk Cleaner).
* **Programming Software** – Tools to write code (e.g., Java, Python compilers).

**3. What is SDLC? Explain each phase of SDLC**

* **SDLC (Software Development Life Cycle)** is the process of developing software step by step.

**Phases:**

* **Requirement Analysis** – Understanding what the user needs.
* **Design** – Planning the structure of software.
* **Implementation (Coding)** – Writing the actual code.
* **Testing** – Checking if the software works properly.
* **Deployment** – Delivering the software to users.
* **Maintenance** – Fixing bugs, updating features after release.

**4. What is DFD? Create a DFD diagram on Flipkart**

* **DFD (Data Flow Diagram)** shows how data moves inside a system.
* Flipkart Example (DFD):



Search Request



Customer



Payment Request to bank



Payment Status



**5. What is Flowchart? Create a flowchart to make addition of two numbers**

* **Flowchart** is a diagram that shows steps of a process using symbols.

Show Result

Add Numbers

Input Number 1 & Number 2

**6. What is Use Case Diagram? Create a use-case on bill payment on Paytm**

* **Use Case Diagram** shows how users interact with a system.
* **Paytm Bill Payment Example:**

**Paytm Bill Payment System**

Bank

User