  MODULE: 1   SE

**A - 1**   **Definition of Software** -

The software is basically a set of instructions or commands that

tell a computer what to do.

**Software engineering** -

Software engineering is the process of designing, developing, testing and maintaining software.

**A - 2**   **Types of software**

1. System Software

System software refers to the low-level software that manages and controls a computer hardware and provides basic services to higher level software.

1. Application Software

Application software is developed to help users perform specific tasks.

1. Middleware Software

Middleware software provides common services and capabilities to applications beyond what's offered by the operating system.

1. Driver Software

Device Communicator

1. Programming Software

Programming software provides tools to write, test, and debug other software programs.

1. Utility Software

Utility software helps in managing, maintaining, and controlling computer resources.

**A - 3**    **SDLC** -

* Software Development Life Cycle
* The Software Development Life Cycle (SDLC) is a structured process used for developing software applications.
* It provides a systematic approach to planning, creating, testing, and deploying software, ensuring that it meets the requirements and expectations of stakeholders.

**Phase of SDLC** -

1. Planning

* Project plan
* Feasibility report
* Risk management plan

1. Analysis

* Requirements specification document
* Use cases and user stories

1. Design

* Develop a high-level system architecture.
* Design database schemas and data models.
* Create detailed design for each software component and module.
* Design user interfaces and user experience (UI/UX).
* Prepare design specifications and design documents.

1. Implementation

* Source code
* Code documentation
* Unit test cases and results

1. Testing

* Test plan
* Test cases and test scripts
* Test results and defect reports
* Test summary report

1. Maintenance

* Maintenance reports
* Updated software and patches
* Support documentation
* Performance

**Ans – 4** **DFD**-

A Dataflow Diagram(DFD) maps out the flow of information for any process or system.

**DFD diagram on Flipkart -**

Payment process

Payment gateway

Place order

Product search

Registration/Login

User

**Ans – 5** **Flow chart**

A flow chart is a diagram that depicts a process, system or computer algorithm.

**Create a flowchart to make addition of two numbers -**

End

Output

Addition of num1+num2

Input num2

Input num1

Start

**Ans – 6 use case diagram –**

A use case diagram is a visual representation of how users might interact with a system as computer software, a business, or a customer experience.

**Create a use-case on bill payment on Paytm** **-**

Login

Logout

Confirm payment

Make payment

Review

Enter bill details

Payment type