**Assignment – Module 1**

1. **What is SDLC?**

* SDLC is Structure Imposed on the Development of Software Product that Defines the   
  Process of Planning, Implementation, Testing, Documentation, Deployment, Ongoing Maintenance and Support.

1. **What is Software Testing?**

* Software Testing is Process Used to Identify Correctness, Completeness And Quality of Developed Computer Software.

1. **What is SRS?**

* Software Requirement System is Complete Description of the Behavior of the System to be developed.

1. **What is OOPS?**

* Object Oriented Programming System is used to Identify Object and Assigning Responsibility to these Objects.
* An ‘Object’ is Anything which is Related to Concept

1. **What is Basic Concept of OOPS?**

* **OOPS has Four Concept**

Class

Object

Encapsulation

Inheritance

Polymorphism

Abstraction

1. **What is Object?**

* Instances of Class
* To Create an Memory of an Class

1. **What is Class?**

* Class is Collection of Data Member (Variable) and Member Function (Process, Methods) with its Behavior.

1. **What is Encapsulation?**

* Wrapping up all your data in Single Unit.
* Private your Data Member and Member Function

1. **What is Inheritance?**

* Property of Parents Class Extended to Child Class
* Mainly Uses for Reusability and Extendibility

1. **What is Polymorphism?**

* Polymorphism : Ability to take One Name having Different Forms

1. **Draw Use case of on Online Book Shopping?**

* Login
* Search Book
* Place Order
* Payment
* Registration
* Update Profile

1. **Draw Use case of on Online Bill Payment System using Pay tm?**

* Go to Pay tm
* Recharge and Bill Payment
* Electricity
* Select States
* Select Electricity Board
* Select District
* Add Service Number
* Proceed to Pay
* Select Option to Pay
* Add Password

1. **Write SDLC Phases with Basic Information?**

* **SDLC Phases with Basic Introduction:**
* Requirement Collection / Gathering:
* Establish Customers Needs
* Requirements will Change
* There is two Types of Requirements

(1)Functional (2) Non-Functional

* Three types of Problem can Arise

(1)Lack of Clarity

(2)Requirement Confusion

(3)Requirement Amalgamation

* Analysis:
* Model and Specify Requirements- ‘What’
* The Analysis Phase Defines the Requirements of the System, Independent of how these Requirements will be accomplished.
* The deliverable Result at the end of this Phase is a Requirement Document
* Ideally, This Document states in a Clear And Precise Fashion what is to be Built
* Design:
* Model and Specify Solution – ‘Why’
* Design Architectural Documents
* Performance Analysis
* Test Plan
* Implementation:
* Construct a Solution in Software
* Implementation – Code
* Critical Error Removal
* Testing:
* Validate the Solution Against the Requirements
* Configuration and Version management
* Reengineering
* Updating All Analysis , Design and User Documentation
* Maintenance:
* Repair Defects and Adapt Solution to the new Requirements
* There are Three Types of Maintenance

(1)Corrective Maintenance

(2)Adaptive Maintenance

(3)Perfective Maintenance

1. **Explain Phases of Waterfall Model?**

* **Phases of Waterfall Model :**

Requirement Collection / Gathering

Analysis

Design

Implementation

Testing

Maintenance

1. **Write Phases of Spiral Model**

* **Phases of Spiral Model:**

Planning

Risk Analysis

Engineering

Customer Evolution

1. **Write Agile Manifesto Principles**

* Individual Interaction
* Working Software
* Customer Collaboration
* Responding to Change

1. **Explain Working Methodology of Agile and also Write Pros and Cons**

* **Working Methodology of Agile:**

Agile SDLC model is a Combination of Iterative and Incremental Process Models with focus on Process adaptability and Customer Satisfaction by Rapid Delivery of Working Software Product.

* **Pros :**

1. Is a Very Realistic Approach to Software Development
2. Promotes Team Work and Cross Training
3. Resource Requirements are Minimum
4. Suitable for fixed or Changing Requirements

* **Cons :**

1. Not Suitable for Handling Complex Dependencies
2. More Risk of Sustainability, Maintainability and Extensibility
3. Depends Heavily on Customer Interaction, So if Customer is not Clear , team can be Driven in the Wrong Direction
4. **Draw Use case of on Online Shopping Product using COD?**

* Login
* Add Category
* Add Item
* Manage Item
* Manage Order
* Registration
* View item
* Make Order
* Make Payment
* Add Password

1. **Draw Use case of on Online Shopping Product using Payment Gateway?**

* Login
* Browse Item
* View and Select Item
* Add to Shopping Cart
* Proceed to checkout
* Make Payment
* Confirm Order