**Modul-1 (Fundamental)**

1. **What is SDLC?**

* SDLC Stands For Software Development Lifecycle
* SDLC is a Systematic Process For Buildings Software that Ensures the Quality and Control
* SDLC Consists of a Detailed Plan Which Explan How to Plan Build and Maintain Specific Software

1. **What is Software Testing?**

* Software Testing is the Process Used to Identify the Correctness, Completeness and Quality of Devloped Computer Software

1. **What is Agile Methodology?**

* Agile SDLC Model is Combination of Iterative and Incremental Process Model with Focus on Process Adaptability and Customer Satisfaction by Rapid Delivery of Working Software Product
* Agile Method Breaks the Product into Small Incremental Builds this Builds are Provided in Iterations
* At the end of Iteration a Working Product id Displayed to the Customer and Important Stakeholders

1. **What is SRS?**

* A Software Requirements Specification (SRS) is Complete Description of The Behavior of the System to be Developed
* It Includes a Set of Use Cases that Describe All of the Interaction that the Users will have with the Software

1. **What is OOPS?**

* The Basic Concept of OOPS is to Create Object Re-Use Them Throughout The Program and Manipulate These Objects to Get Results
* Object Oriented Programming is About Data and Methods

1. **Write Basic Concepts of OOPS?**

* Object
* Class
* Abstraction
* Inheritance
* Polymorphism
* Encapsulation

1. **What is Object?**

* Object is Instance of Class
* An Object in OOPS Nothing But a Self-Contained Component Which Consists of Method and Property to Make a Particular Type of Data Useful
* From a Programming Point of View An Object in OOPS Can Include a Data Structure It has Memory Location Allocated

1. **What is Class?**

* When You Define a Class You Define a Blueprint For An Object
* This Doesn’t Actually Any Data But It Does Define What The Class Name Means That s What an Object of the Class Will Consist of and What Operation can be Performed on Such an Obeject

1. **What is ENCAPSULATION?**

* Encapsulation is the Process of Including in an Object Every Thing Needs Hidden From Other Objects The Internal States Usually Not Accessible by Other Objects
* Encapsulation is the Process of Wrapping Data (Properties) and Behavior (Method) of an object into Single Unit and The Unit Here is a class
* Encapsulation Enables Data Hiding , Hiding Irrelevant Information From the User of a Class and Exposing Only Relevant Details Required by The User

1. **What is INHERITANCE?**

* Inheritance Means One Class Inherits Characteristics of Another Class
* This is Very Useful Concept of OOPS Since This Feature Reduce The Code Size
* Code Reusability can be Achieved Though This Concept

1. **What is POLYMORPHISM?**

* Polymorphism Means Having Many Forms
* It Allows Different Objects to Respond to the same Message in Different Ways Response Specific to the type of the Object
* The Ability to Change Form is know as Polymorphism
* In This There Are Mainly Two Type

1. **OVERLODING**
2. **OVERRIDING**
3. **Write SDLC Phases with Basic Introduction?**

* SDLC is a Structure Imposed on the Development of a Software Product That Defines The Process of Planning , Implementation Testing Documentation Deployment , and Ongoing Maintenance and Support There are Various SDLC Phases Describe Below

1. **Requirement Gathering**

* First Phase of SDLC Model is Collect Requirement From client
* This Stage Gives Clear Picture of the Scope of the Entire Project and The Anticipated Issues Opportunities , and Directives Which Triggered The Project
* Requirement Gathering Stage Need Teams to get Detailed and Precise Requirement

***Three Types of Problem can Arise During Requirements Gathering Phase***