**Software Testing Assingnment**

**Module-1 ( Fundamental )**

**1 . What is SDLC**

**Ans :**

SDLC is a structure imposed on the development of a software product that defines the process for planning , implementation , testing , documentation , deployment , and ongoing maintenance and support . There are a number of different development models.

**2 . What is software testing ?**

**Ans :**

Software Testing is a process used to identify the correctness , completeness , and quality of develoed comuter software.

**3. What is agile methodology ?**

**Ans :**

Agile SDLC model is a combination of iterative and incremental process models with focus on process models with focus on process adaptability and customer satisfaction by rapid delivery of working software product.

**4. What is SRS**

**Ans :**

A Software requirements specification (SRS) is a complete description of the behavior of the behavior of the system to be developed .

It includes a set of use cases that describe all of the interactions that the users will have with the software .

**5 . What is oops**

**Ans :**

* Indentifying objects and assigning responsibilities to these objects.
* Objects Communicate to other objects by sending messages .
* An object is like a black box.
* The internal details are hidden.
* Object is derived from abstract data type .

**6 . Write a Basic Concepts of oops**

**Ans :**

**Concepts of oops :**

* Object
* Class
* Encappsulation
* Inheritance
* Polymorphism
* Abstraction

**7 . What is object**

**Ans :**

**Object :**

* Tangible Things
* Roles
* Incidents
* Interactions
* Specifications

**8 . What is Class**

**Ans :**

When you define a class , you define a blueprint for an object . This doesn’t actually define any data , but it does define what the class name means , that is , what an object of the class will consist of and what operations can be performed such an object .

**9 . What is encapsulation**

**Ans :**

Encapsulation is the practice of including in an object every thing it needs hidden from other objects. The internal state is usually not accessible by other objects .

**10 . What is Inheritance**

**Ans :**

Inheritance means that one class inherits the characteristics of another class . This is also called “ is a “ relationship .

**11 . What is Polymorphism**

**Ans :**

Polymorhism means “ having many forms “.The most important aspect of an object is its behavior . A behavior initiated by sending a message to the object.

**14 . Write SDLC phases with basic introduction**

**Ans :**

**SDLC Phases is a Six Phases**

**(1) Requirements Collection / Gathering :**

* Three types of problemscan arise :
* Lack of Clarity
* Requirements confusion
* Requirements Amalgamation

* Types of Requirements :
* Functional Requirements
* Non-Functional Requirements

**(2) Analysis :**

* Analysis Phases Means Model and Specify the requirements “What”

**(3) Design Phase :**

* Design Architesture Document
* Implementation Plan
* Critical Priority Analysis
* Performance Analysis
* Test Plan

**(4) Implementation Phase :**

* In the implementation Phase The team builds the components either documents from the design phase and the requirement document from the analysis phase.
* Implementation – Code
* Critical Error Removal

**(5) Testing Phases :**

* Simply Stated , quality is very important .
* Configuration and version management
* Reengineering
* Updating all analysis, design and user documentation

**(6) Maintenance :**

* Repair defect and adapt the solution to the new requirements .
* Corrective maintenance
* Adaptive maintenance
* Perfective maintenance

**15 . Explain phases of the waterfall model**

**Ans :**

The Classical software lifecycle n the software development as a by-step “water fall “ between the various development phases .

* Requirements collection
* Analysis
* Design
* Implementation
* Testing
* Maintenance

**16 .Write Phases of spiral model**

**Ans :**

Spiral Model is very widely used in the software industry as it is in synchwith the natural development Process of any product i..e Learning with maturity and also involves minimum risk for the customer as well as the development firms . Following are the typical uses of Spiral model :

* Planning = Determination of objectives , alternatives and constraints
* Customer Evaluation = Assessment of the results of engineering
* Risk Analysis = Analysis of alternatives and identification / resolution of risk
* Engineering = development of the “next level “ product

**17 . Write agile manifesto principles**

**Ans :**

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

**18 . Explain working methodology of agile model and also write pros and cons .**

**Ans :**

* **PROS**
* Promotes teamwork and cross training ?
* Resource requirements are minimum.
* Delivers early partial working solutions .
* Good model for environments that changes steadily .
* Minimal rules ,documentation easily employed .
* **CONS**
* Not sutiable for handling complex dependencies .
* More risk of sustainability , maintainability and extensibility.
* Depends heavily on customer interaction ,so if customer is not clear ,teaming can be driven in the wrong direction .
* There is very high individual dependency , since there is minimum documentation generated .
* Transfer of technology to new team members may be quite challenging due to documentation use- case.







