

## SOFTWARE TESTING ASSIGNMENT

### Module\_1(Fundamental)

®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.

®What is software testing?

ANS:Is the process used to identify the correctness,completeness,and quality of developed computer software.

®What is agile methodology?

ANS:Is the combination of iterative and incremental process models with the focus on process adaptability and customer satisfaction by rapid delivery of working software product.

®What is SRS

ANS:A software requirement specification(SRS) is a complete description of the behavior of the system to be developed.

®What is oops

ANS:An object oriented programming language is one which easily supports object-orientation.It has several interacting objects, each object keeping its own state.

®Write Basic Concepts of oops

ANS:-object

-class

-encapsulation

-inheritance

-polymorphism

-abstraction

®What is class?

ANS:A class represents an abstraction of the object and abstracts the properties and behaviour of that object. E.g.' "Apple is a fruit" so Fruit is a class and apple is an object.

®What is encapsulation?

ANS: Is the process of wrapping up data (properties) and behavior (methods) of an object into a single unit; and the unit here is a class.

®What is inheritance

ANS: It means that one class inherits the characteristics of another class.

®What is polymorphism

ANS: polymorphism means “having many forms”.

®Write SDLC phases with basic introduction

Requirements collection/Gathering	Establish customer needs
Analysis	Model and specify the requirements – “what”
Design	Model and specify the solution- “why”
Implementation	Construct a solution in software
Testing	Validate the solution against the requirements
Maintenance	Repair defects and adapt the solution to the new requirements

®Explain phases of the waterfall model

ANS: Requirements collection, analysis, design, implementation, testing, maintenance.

-Requirements are very well documented, clear, and fixed.

-Product definition is stable.

-Technology is understood and is not dynamic.

-There are no ambiguous requirements.

-Ample resources with required expertise are available to support the product.

-The project is short.

®Write the phases of the spiral model

ANS: Spiral model is very widely used in the software industry as it is in synch with the natural development process of any product i.e learning with maturity also involves minimum risk for the customer as well as the development firms.

Four phases of spiral model

1. planning/Requirement gathering/feasibility study
2. Risk analysis/design
3. Engineering/coding
4. Customer evaluation /testing

®Write agile manifesto principles

1. Individuals and interactions
2. working software
3. customer collaboration
4. Responding to change

®Explain working methodology of agile model and also write pros and cons

ANS: 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. Very realistic approach
2. Rapid delivery
3. Functionality can be developed rapidly
4. Resource requirements are minimum.
5. Little or no planning required
6. Promotes teamwork and cross training.
7. Suitable for fixed or changing requirements.
8. Gives flexibility to developers.

Cons

1. More risk of sustainability, maintainability, and extensibility.

2. Depends heavily on customer interactions.