Software Testing Assignment

Module–1(Fundamental)

1) **What is SDLC**
   Ans:- software development life cycle is a process used by software industry to design,develop and test software.

2)What is software testing?

Ans:- Software Testing is a process used to identify the correctness, completeness, and quality of developed computer software.

3)What is agile methodology?

Ans:- Agile is a project management methodology which aims continuous improvement and iteration at every stage. Continuous collaboration and iteration is key for agile implementation.

4)What is SRS?

Ans:-A software requirements specification (SRS) is a document that describes what theSoftware will do and how it will be expected to perform. It also describes the functionality the Product needs to fulfill the needs of all stakeholders (business,users).A software requirements specification (SRS) is a complete description of the behavior of theSystem to be developed.It includes a set of use cases that describe all of the interactions that the users will have with The software.

Types of Requirements:-

. Customer Requirements

. Functional Requirements

. Non-Functional Requirements

5)Write SDLC phases with basic introduction?

Ans:-1: Gathering Requirements & Analysis:- Establish Customer Needs, Model And Specify the

Requirements-“What”

2: Project Planning:- divide activity into steps

3: Design:-Model And Specify a Solution – “Why”

4: Coding or Implementation:-Construct a Solution In Software

5: Testing:-Validate the solution against the requirements

6: Deployment:- product is released to the customer

7: Maintenance:-Repair defects and adapt the solution to the new requirements

6)Explain phases of the waterfall model

Ans:-The Waterfall Model was first Process Model to be introduced. It is also referred to as a linear- sequential life cycle model. It is very simple to understand and use. In a waterfall model, each phase must be completed before the next phase can begin and there is no overlapping in the phases.

The sequential phases In Waterfall model are

1)Requirement Collection and Documentation:-Waterfall model is that all customer requirements are collected and approved before the beginning of the project, meaning no mid-project changes are allowed.

2)Project Analysis:-Project specifications are reviewed from business perspectives, technical and financial resources are audited for feasibility.

3)Design:-Project manager relies on project requirements to develop project specifications, including project plan

4)Testing:-After the development is completed, testing is performed to identify flaws and errors, fix and polish the end-product. Customer involvement is possible.

5)Maintenance:-Regular updating, verification and debugging of the software

7)Write phases of spiral model?

Ans:-Planning phase:-The first phase of the Spiral Model is the planning phase, where the scope of

The project is determined and a plan is created for the next iteration.

Risk analysis:- Analysis of alternative and identification resolution of risk.

Engineering:- development of the next level product.

Evaluation:- Evaluation phase includes all the above phases whether it is about planning, riskAnalysis, engineering & execution the client goes through each phase for product/software.

8)Write agile manifesto principal?

Ans:-Ans.The four core values of Agile software development as stated in the Agile Manifesto are asFollows: Individuals and interactions over processes and tools. Working software overComprehensive documentation. Customer collaboration over contract negotiation. RespondingTo change over following a project plan.

9.Explain working methodology of agile model and also write pros and cons?

Ans:-Agile model is follow the iterative and incremental approach.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. Agile Methods break the product into small incremental builds.These builds are provided in iterations.Every iteration involves cross functional teams working simultaneously on various areas likePlanning, requirements analysis,Design, coding, unit testing, and acceptance testing.At the end of the iteration a working product Is displayed to thecustomer and important stakeholders.

Pros:-

- **Flexible**
- **Advance model**
- **New build made- as per customer requirement**
- **Re-release after getting feed back from customer**

● Delivers early partial working solutions.

●Good model for environments that change steadily.

cons:-

●Not suitable for handling complex dependencies.

●More risk of sustainability, maintainability and extensibility.

●An overall plan, an agile leader and agile PM practice is a must without which it will not work.

10) What is oops?

Ans. Object oriented programming system (oops):- Object means a real-world entity such as a Pen, chair, table, computer, watch, etc. Object-Oriented Programming is methodology or Paradigm to design a program using classes and objects. It simplifies software development and Maintenance by providing some concepts: Object.

11) Write basic concepts of oops?

Ans:-There are such concepts of oops which is following:-

Object

Class

Encapsulation

Inheritance

Polymorphism (Overriding, Overloading)

Abstraction

12)What is object?

Ans:-An object represents an individual, identifiable item, unit, or entity,either real or abstract, With a well-defined role in the problem domain. An "object" is anything to which a concept Applies.

13)What is class?

Ans:-Class is group of object. Class is a template definition of the methods and variables in Particular kind of object.

14)What is Encapsulation?

Ans:-It is describes the bundling of data and methods operating on this data into one unit.

15) What is inheritance?

Ans:- When a class derives from another class is inheritance. The child class will inherit all the Public and protected properties and methods from parent class.

16:-What is polymorphism?

Ans:- It is the core concept of oops and describes situations in which something occurs in ssevera

Different forms. It has two methods –

Overloading – in method overloading, multiple methods having same name can appear In One class with different parameters.

Overriding – in method overloading, multiple methods having same name can appear in One class with different parameters