***SOFTWARE TESTING ASSIGNMENT***

**MODULE -1**

**Q1.What is SDLC?**

**Ans. Software development life cycle is used to development of a software product that defines the process for planning, implementation, testing, documentation, deployment, and ongoing maintance and support.**

**Q2.What is software testing?**

**Ans. Software testing is process to identify the correctness, completeness, and quality of developed computer software.**

**Q3.What is agile methodology?**

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

**Q4.What is SRS?**

**Ans. A software requirements specification(SRS) is a complete description of behavior of the system to be developed. It includes a set of use cases that describes all of the interactions that the users will have with the software. Use cases are also known as functional requirements. In addition to usecases, the SRS also contains nonfunctional (or Supplementary) requirements.**

**Q5.Whats is oops?**

**Ans. Object oriented programming is used identifying objects and assigning responsibilities to these objects. It communicate to other by sending messages. An object is like a black box. The internal details are hidden. Object-oriented programming has a web of interactingobjects , each house-keeping its own state.**

**Q6.Write basic concepts of oops?**

**Ans. There are six basic concepts.**

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

**Q7.What is Object?  
Ans. It a instances of an class.**

* **To access the whole properties of an class except private.**
* **Object = Data + Methods.**

**Q8.What is class?**

**Ans. It is an collection of data member (variable) and member function (Method, Process) with the behavior.**

* **It defines blue print of an object.**
* **In the case of a car or laptop , there will be a blueprint or design created first and then the actual car or laptop, there will be built based on that.**

**Q9.What is Encapsulation?**

**Ans. Data hide – Wrapping up of data into single unit.**

* **Example: private your data member and member fun.**
* **Encapsulation is placing the data and the functions that work on that data in the same place. While working with procedural languages, it is not always clear which functions work on which variables but not object-oriented programming provides you framework to place the data and the relevant functions together in the same object.**
* **The internal state is usually not accessible by other objects.**

**Q10.What is inheritance?**

**Ans. Properties of parent class extends into the child class.**

* **Properties of super class extends into subclass.**
* **Main purpose Is Reusability, Extendsibility.**
* **There are mainly 5 types.**
* **Single.**
* **Multilevel.**
* **Hierarchical.**
* **Multi: Java does not support directly.**
* **Hybrid: Java does not support directly.**
* **Inheritance means that one class inherits the characteristics of another class. This is also called a “is a” relationship.**

**Q11.What is Polymorphism?**

**Ans. Ability to take one name having many forms.**

* **There are mainly two types.**
* **Compile time.**
* **Run time.**
* **It allows different objects to respond to the same message in different ways, the responses specific to the type of the object.**
* **The most important aspect of an object is its behavior.**
* **A behavior is initiated by sending message to the object.**

**Q12.Write SDLC phases with basic introduction?**

**Ans. There are mainly six types of phases.**

* **Requirements Collection/Gathering.**
* **Analysis.**
* **Design.**
* **Implementation.**
* **Testing.**
* **Maintenance.**

**! REQUIREMENTS GATHERIN.!**

**1.Features.**

**2.User scenario.**

**3.Requirements will change!**

**4. Plan for change.**

**\*Three types of problems can arise:**

**(Lack of clarity, Requirements confusion , Requirements Amalgamation).**

**!Analysis Phase!**

* **The analysis Phase defines the requirement 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 Phase!**

* **Design architecture document.**
* **Implementation plan.**
* **Performance Analysis.**
* **Test plan.**

**! Implementation phase!**

* **In the implementation phase, the team builds the components either from scratch or by composition. Phase and the requirement document from the analysis phase, the team should build exactly what has been requested, though there is still room for innovationand flexibility.**
* **For example, a component may be narrowly designed for this particularsystem, or the component may be made more general to satisfy a reusabilityguideline .**
* **Implementation – Cod.**

**! Testing phases!**

* **Simply stated, quality is very important. Many companies have not learned that quality is important and deliver more claimed functionality but at a lower quality l**evel.
* **It is much easier to explain to a customer why there is a missing feature than to explain to a customer why the product lacks quality.**
* **A customer satisfied with the• quality of a product will remain loyal and wait for new functionality in the next version.**

**! Maintance !**

* **Maintenance is the process of changing a system after it has been deployed.**
* **CORRECTIVE MAINTENANCE: Identifying and repairing defects.**
* **ADAPTIVE MAINTENANCE : Adapting the existing solution to the new platforms.**
* **PERFECTIVE MAINTENANCE : Implementing the new on decides the utility and value of the software at a particular level of quality outweighs the impact of the know defect and deficiencies.**

**Q13.Explain phases of Waterfall model?**

**Ans. The classical software lifecycle and the software development as a step by step “waterfall” between the various development phases.**

**Q14.Write phases of spiral model?**

* **Ans.Spiral model is very widely used in the used in the testing industry. It is synch with the natural development process of any product.**
* **For medium to high risk project**
* **For long team project**
* **Requirement are complex and need evaluation to getv clarity**
* **Customer is not sure of requirement which are usually the case**
* **New product line should released in phases to get customer feedback.**

**Q15Write agile manifesto principles?**

**Ans. There are 12 principles of agile.**

**Satisfy the customer.**

**Welcome changing requirement .**

**Business work with developers daily.**

**Build project around mothivated indivduals.**

**Face to face conversation best.**

**Working software matters.**

**Constant pace.**

**High quality code is faster.**

**Maximize work not done.**

**Self organizing teams deliver quality.**

**Feedback loop used to improve.**

**Q16. Explain working methodology of agile model and**

**Also write pros and cons?**

**Ans. Agile SDLC model is a combination of iterative and incremental process model with focus on process adaptability and customer satisfaction.**

**They breaks into small incremental builds.**

**The builds are provided in iterations**

**They provided display to customer and important stakeholder.**

* **Pros**

**Is a very realistic approach to software development.**

**Teamwork and cross traning .**

**Suitable for fixing .**

**Good modal for environment.**

**Easy to manage .**

**Little or on planning required.**

**Flexibility to developers.**

**>cons**

**Not suitable foe handling comlex dependencies.**

**Risk of sustainability,maintainabilityand extensibility.**

**Plan, agile leader and agile PM must without which it will**

**not work.**

**There is very hidh individual dependency.**

**Q17. Draw usecase on online shopping product uising COD?**

**Ans.**