**MODULE---1**

1. **WHAT IS TESTING?**

**SOFTWARE TESTING IS A PROCESS TO IDENTIFY CORRECTNESS, COMPLETENESS & QUALITY OF DEVELOPED COMPUTER SOFTWARE.**

**2) Testing Activity**

**Planning And Control**

**Choosing Test Conditions**

**Designing test cases**

**Checking Results**

**Evaluating completion criteria**

**Reporting test process and system under test**

**Finalizing and Closer**

**Testing also includes reviewing of the documents**

**3)Test objective**

**Finding defects**

**Gaining confidence in and what we are giving in the level of quality**

**Preventing defects**

**Both static and dynamic testing**

**Reviewing the process thought the life cycle**

**4) Why testing is necessary**

**We all make mistakes all the time**

**Sometime it is unimportant and sometimes it is very much expensive and dangerous**

**We need to check everything and anything we can**

**We are humans we make mistakes all the time**

**Example : Human disaster or Death**

**Technological disaster**

**5) what is SDLC?**

**Sdlc is a structure imposed on the development of a software product that defines the process for planning,analysis,design,implentation,testing,maintanence and support.**

**6) write SDLC phases with basic introduction?**

**SDLC has 6 phases.given below**

**1) requirements collections/gathering in that customer provides their needs of the given project.but in that project three types of problems can arise that is lack of clarity,requirements confusion,requirements amalgamation.**

**2) analysis phase defines the requirements of the system or how this requirements will be accomplished.**

**3) design phase is the process to modify the given requirements and give their solution.**

**4) implementation phase builds the components or the given documents from design phase or from the analyis phase and from the given documents the thing which is been build should exactly be same.**

**5) testing phase is used to check the quality of components whether it is correct or not.and if the testing goes correct then it is handed to the customer.**

**6) maintanence phase is a process of changing a system after it is been deployed.in this phase there are also three types like corrective maintanence,adaptive maintanence,perfective maintanence.**

**So, this is how the SDLC model works and their where some given phases and the basic introduction of software development life cycle.**

**7) what is agile methodelogy?**

**Agile model is a combination of iterative and incremental model.this models breaks the products into small incrementals builds.this builds are done through iterations. Every iteration involve the cross working function simultaneously on various features like planning,requirements,analysis,design,coding,unit testing and acceptance testing.**

**8) what is agile menifesto?**

**Agile model has four menifesto such as individual interaction, working software, customer collobaration, responding to change.**

**9) explain working methodology of agile model and also write pros and cons?**

**Agile methodology works on the rapid delivery of the software working product.agile methodology breaks the products into small parts.this builds are done in iterations.each iterations lasts for one to three weeks. Every iterations involves cross functional team working on the various areas like planning, requirements, analysis, design, coding, unit testing and acceptance testing.at the end product is displayed and it given to the customer.**

**Following are the advantage and disadvantage**

* **It is a good approach to software development.**
* **Promotes team working**
* **Functionality can be developed rapidly**
* **Requirements are minimum**
* **Good model for enviroments**

**This was the above advantage.**

* **Not suitable for complex dependenices**
* **More risk in maintaining, Sustaining.**
* **Depends heavily on customer interaction**
* **High dependency because of minimum document generated**
* **Lack of documentation**

**The above written are disadvantage.**

**10) what is srs?**

**A software requirements specifications is a complete description of behaviour of the system to be developed.in the srs there are three types of requirements such as customer requirements, functional requirements and non-functional requirements.**

**11) what is oops?**

**Oops is an object oriented programming system based on identifying the object and assigning responsibilites to these object.**

**12) write phases of spiral model?**

**Spiral model was widely used in the software industry as it is in synch with the natural development process of any product.in spiral model there are four phases such as:-planning, customer evaluation, engineering, risk analysis.**

* **Planning:- determination of objectives.**

**What will be the alternative.**

**Constrains**

* **Customer evaluation:- what are the customer needs.**

**Assessment of the engineering**

* **Risk analysis:- analysis of alternatives and identifications resolutions of risks.**

**Go , no-go decision prototype as well as delay in the project and increase in the cost**

* **Engineering:- development of the next level project.**

**13) explain phases of waterfall models?**

**Waterfall model is a step by step process between the various development phases.following are the given phases mentioned below**

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

**NOTE :- while we work on waterfall model testing there is no back in testing and requirements must be frozen and fixed. The time limit of project is short.**

**14) write basic concept of oops?**

**1) object**

**2) class**

**3) encapsulation**

**4) inheritance**

**5) polymorphism**

**6) abstraction**

**15) what is object?**

**An object represents the instance of the class.**

**To create memory for that class I.e. to access the whole properties of class except private.**

**For example :- sy:**

**Classname objectname = new classname();**

**16) what is class?**

**Class is an collection of data member (variable) and member function (process,methods) with its behaviour**

**For example :- sy:**

**Class classname**

**{**

**Data member**

**Member function**

**}**

**17) what is encapsulation?**

**Encapsulation is a process of including everything into an object and hidding from the other object.**

**For example :- data hidding : wrapping up of data into single unit.**

**: private your date member and member function.**

**18) what is inheritance?**

**Inheritance means properties of parent class extends into the child class.we can also redefine as saying that the properties of super class extends into the sub class.**

**Main purpose of inheritance is that we can reuse (reusabitity,extendability) and we can also expand it.**

**There are mainly five types of inheritance given below.**

**1) single**

**2) multiend**

**3) hierarchical**

**4) multiple**

**5) hybride**

**19) what is polymorphism?**

**Polymorphism means ability to take one name having many forms, multiple or different forms.**

**There are mainly two types of polymorphism.**

**1) method overloading (compile time)**

**2) method overriding (run time)**

**TEST CASES**

