**Module : 2**

1. **What is exploratory testing?**

* Exploratory testing is concurrent process where
* Test design, execution and logging happen simultaneously
* Testing is based on test character that may include

1. **What is a traceability matrix?**

* Traceability matrix means to protect against changes you should be able to trace back from every system component to the original requirement to the original requirement that caused its presence .

1. **What is boundary value testing?**

* Boundary value testing is for refined equivalence partitioning.

1. **What is Equivalence partitioning testing ?**

* Aim is to treat groups of inputs

As equivalent and select one representative input to test them all

Equivalence part.

1. **What is integration testing?**

* Testing performed to expose defects in the interfaces and in the interaction between integrated components
* Integration testing is level of the software testing process where units are combined and tested as group

1. **What determines the level of risk?**

* Project risk
* Product risk
* Project risk : every risk assigned a likelihood i.e, chance of occurring typically on a scale of 1 to 10
* Product risk : mitigation with this case would be conducting a smoke or sanity testing

1. **What is alpha testing?**

* It is always performed by developers at the software development site.
* It is not open for market and public
* It is always performed in virtual environment

1. **What is beta testing?**

* It is always performed by customers

at their own site

it is not performed by independent testing team

it always open for market and public

1. **What is component testing?**

* Unit testing in extreme programming involves the extensive use of testing framework .
* A unit test framework is used in order to create automated unit tests
* Unit testing frameworks are not unique to extreme programming ,but they are essential to it.

1. **What is functional system testing?**

* A requirement that specifies a function that a system must perfume

1. **What is non functional testing?**

* Testing that attribute of a component that do not relate to functionality, e.g. reliability, efficiency ,usability, interoperability ,maintainability and portability

1. **What is GUI testing?**

* Graphical User Interface testing is the process of testing the system’s GUI of the system under test
* GUI testing involve checking the screens with the controls like menus ,buttons, icons, and all types of bars – tool – bar ,menu – bar, dialog boxes and window etc

1. **What is adhoc testing?**

* Adhoc testing is an informal testing type with an aim to break the system
* It doesn’t follow any test design techniques to create test case
* This testing is primary performed if the knowledge testers in the system under test is very high

1. **What is load testing?**

* Its performance testing to check system behavior under load testing an application under heavy loads, such as testing of a web site under a range of load to determine at what point the system’s response time degrades or fails
* Load testing is a kind of performance testing which determines a system’s performance under real life load condition
* This testing helps determine how the application behaves when multiple users access it simultaneously

1. **What is stress testing?**

* AUT is be stressed for a short period of time to know its withstanding capacity
* Most prominent use of stress testing is to determine the limit , at which the system or software or hardware breaks

1. **What is white box testing and list the type of white box testing?**

* White box testing: testing based on an analysis of the internal structure of the component or system
* List
* Web based testing
* Desktop based testing
* Mobile based testing
* Game based testing

1. **What is black box testing? What are the different black box testing techniques ?**

* Black box testing: either functional or non functional , without reference to the internal structure of the component or system
* Techniques:
* Equivalence partitioning
* Boundary value analysis
* Decision table
* State transition testing
* Use - case testing
* Other black box testing
* Syntax or pattern testing

1. **Mention what are the categories of defect?**

* Mainly two type of defect
* Security defect in it other two categories

1. Authentication
2. Authorization

* User interface defects

1. Improper
2. Spelling mistakes
3. Alignment problems
4. **Mention what is big bang testing ?**

* All modules are integrated simultaneously, after which everything is tested as a whole.

1. **What is the purpose of exit criteria?**

* End of all testing – i.e. product go live
* End of phase of testing

1. **When should regression testing be performed?**

* Change in requirement and code is modified according to the requirement
* When new future is added
* Defect fixing
* Performance issue fix

1. **What is the 7 key principal? explain in detail?**

* Testing show presence of defect
* Exhaustive testing is impossible
* Early testing
* Defect clustering
* The pesticide paradox
* Testing is context dependent
* Absence of error fallacy

1. Testing shoe presence of defect

* Testing can show that defect are present , but cannot prove there are no defects
* Testing reduces the probability of undiscovered defect remaining on the software but, even if no defects are found , it is not a proof of correctness

1. Exhaustive testing is impossible

* Testing everything including all combination of inputs and preconditions is not possible
* That we must priorities our testing effort using a risk based approach

1. Early testing

* Testing activities should start as early as possible in the development life cycle
* These activities should be focused on defined objectives outline in test strategy

1. Defect clustering

* Defect are not evenly spread in a system
* They are clustered
* An important consideration in test priorities

1. Pesticide paradox

* Testing identifies big , and programmers respond to fix them
* As bugs are eliminated by the programmers , the software improves
* As software improves the effectiveness of previous tests erodes

1. Testing is context depend

* Testing is basically context dependent
* Testing is done differently in different contexts

1. Absence of errors fallacy

* It doesn’t make it good system
* Even after defect have been resolved it may still be unusable and does not fulfill the users needs and expectations

1. **Difference between QA v/s QC v/s tester?**

| | Quality assurance  Focus on process and procedures rather than conducting actual testing on the system.  Process oriented activities  Preventive activities. | Quality control  Focus on actual testing by executing software  Product oriented activities.  It is a corrective process. | Testing  Focus on actual testing  Product oriented activities  It is a preventive process. | | --- | --- | --- | |
| --- | --- | --- | --- |

1. **Difference between smoke and sanity?**

* Smoke testing:
* Smoke testing is performed to ascertain that the critical functionalities of the program are working fine.
* Smoke testing is usually documented is unscripted
* Sanity testing
* Sanity testing is done to check the new bugs have been fixed
* Sanity testing is usually not documented .

1. **Differences between validation and verification?**

Validation verification

The process of evaluating the process of evalu

Software during or at the ting work product

Development process to of a development

Determine whether it phase to determine

Satisfies specified business determine weret

Requirement her specified pha

Se

1. **Explain types of performance testing?**
2. Load testing:

* It is a performance test to check system behavior under load.
* Testing an application under heavy loads, such as testing of a web site under a range of loads to determine at what point the system’s response time degrades

1. Stress testing

* System is stressed beyond its specifications to check how and when it fails
* Performed under heavy load like putting large number beyond storage capacity , complex database queries, continuous input to system load

1. Endurance testing
2. Spike testing
3. Volume testing
4. Scalability testing
5. **What is error, bug and failure?**

* Error :
* A discrepancy between a computed, observed , or measured value or condition and the true , specified, correct value . this can be a misunderstanding of the internal state of the software, an oversight in terms of memory management, confusion about the proper way to calculate a value
* Bug :
* A fault in a program which causes the program to perform in an unintended manner.
* Failure :
* The inability of a system to perform its required functions within specified performance requirements.

1. Difference between priority and severity?

Priority:

* Priority:

Priority defines the order in which we should resolve a defect. Should we fix it now, or can it wait? This priority status is set by the tester to developer mentioning the time frame to fix the defect . If a high priority is mentioned then the developer has to fix it at the earliest . The priority status is set based on the customer requirements.

* Severity:

It is the extent to which the defect can affect the software . In order words it defines the impact that a given defect has on the system.

1. **What is the bug life cycle ?**

* A computer bug is an error., flaw, mistake, failure, or fault in a computer program that prevents it from working correctly or produces an incorrect result . bugs arise from mistakes and errors , made by people , in either a program’s source code or its design.
* The duration or time span between the first time defects are found and the time that it is closed successfully, rejected, postponed or deferred is called the ‘ defect life cycle’.

1. **Explain the difference between functional testing and non functional testing?**

Functional testing:

* Functional testing is executed first
* Manual testing tools can be used for functional testing
* Functional testing describes what the product does
* Easy to do manual testing
* Types of functional testing
* Unit testing
* Smoke testing
* Sanity testing
* Integration testing
* White box testing
* Black box testing
* User acceptance testing
* Regression testing

Non functional testing:

* Non functional testing should be performed after functional testing
* Using tools will be effective for this testing
* Performance parameters like speed, scalability, are inputs to non functional testing
* Non functional testing describe how good the product works
* Though to do manual testing
* Types of non functional testing
* Performance testing
* Load testing
* Volume testing
* Stress testing
* Security testing
* Installation testing
* Penetration testing
* Compatibility testing
* Migration testing

1. **What is the difference between the STLC and SDLC ?**

* STLC: SOFTWARE TESTING LIFE CYCLE
* STLC phases
* Requirement analysis
* Test planning
* Test case development
* Test environment setup
* Test execution
* Test cycle closer

SDLC: SOFTWARE DEVELOPMENT LIFE CYCLE

SDLC phases

* Requirement gathering
* Analysis
* Design
* Implementation
* Testing
* Maintenance

1. **What is the difference between test scenario , test case , test script ?**

* Test scenario:
* A scenario functionality that can be tested . it is also called test condition , or test possibility
* Test case:
* Test cases involve the set of steps, conditions and input which can be used while performing the testing tasks.
* Test script:
* A test script in software testing is a set of instructions that will be performed on the system under test that the system functions as expected.

1. **Explain what test plan ? What is the information that should be covered?**

* A senior QA manager determines the test plan strategy along with efforts and cost estimates for the project.
* Covered
* Test tools selection
* Test efforts estimation
* Resources planning and determine

1. **What is priority?**

* Priority define the order in which we should resolve a defect

1. **What is severity ?**

* It is the extent to which the defect can affect the software . in order words it defines the impact that a given defect has on the system

1. **Bug categories**

* Flaw, mistake , failure, or fault

1. **Advantage of bugzilla?**

* Key features of bugzilla includes
* Advanced search capacity
* Email Notification
* File bug by email
* Time tracking
* Strong security
* Localization

1. **What are different methods in the agile development model?**

* Scrum
* Kanban

1. **Explain the difference between Authorization and Authentication in web testing. What are the common problems faced in web testing?**

* Authentication verifies the identity of a user and Authorization determines their access rights
* Interoperability
* security
* usability
* Performance

1. **What is the procedure of GUI testing?**

Check the all elements for size, position, width

Check the execute the intended function

1. **When to use usability testing?**

* Effectiveness of the system
* Efficiency
* Accuracy
* User friendliness