**Module -2(Manual Testing)**

**1). What is Exploratory Testing ?**

Exploratory Testing is a Concurrent process where Test Design , Execution and Logging happens simultaneously.

**2).What is Traceability matrix ?**

Test condition should be able to link back to their sources in the test basis is known as traceability.

**3).What is boundary value testing?**

Boundary value analysis is a methodology for designing testcases that concentrates software testing effort on cases near the limits of valid ranges.

Boundary value analysis is a method which refines equivalence partitioning.

BVA generates test cases that highlight errors better than EP.

**4).What is Equivalence Partitioning testing ?**

Equivalence Partitioning’s aim is to treat a group of inputs as equivalent and select one representative input to test them all.

EP can be used for all levels of testing.

**5).What is Integration Testing?**

Integration Testing is a level of software testing process where individual units are combined and tested as a Group.

**6).What determines the level of Risk?**

A factor that could be result in future with negative consequences , usually expressed as impact and likelihood.

**7).What is Alpha Testing ?**

Alpha testing done by developer at the software development site.

Alpha testing is not open for market and public.

Mostly Alpha testing performed in Virtual Environment ( within organization)

Alpha testing is conducted for the software application and project.

**8).What is Beta Testing ?**

Beta testing done by customer at their own site.

Beta testing is open for market and public.

Mostly Beta testing performed in Real time environment ( outside organization)

Alpha testing is conducted for the software product.

**9).What is component testing ?**

Component testing is a testing of an individual software component.

**10).What is functional system testing ?**

functional testing is testing based on the analysis of specification of the functionality of a component or system.

**11).What is non-functional testing ?**

Testing the attribute of an component or system that do not relate to functionality.

**12).What is GUI Testing ?**

Graphical User Interface testing is a process of testing the systems GUI of the system under the test.

GUI testing involves checking screen like menus, buttons , icons and all type of bars like toolbar , menu bar , dialog box , and windows etc..

**13).What is Adhoc Testing ?**

Adhoc Testing is an informal testing type with aim to break the system.

The main aim of this testing is to find defects by random checking.

**14).What is load Testing ?**

Load testing is a kind of performance testing is which determines system’s performance under real life load conditions.

This testing helps determines how application behaves when multiple users access it simultaneously.

**15).What is stress Testing ?**

Stress Testing is used to test the “stability” and “reliability” of the system.

It is also use to determine the system on its robustness and error handling under extremely heavy load condition.

**16).What is the white box testing ? and list the types of white box testing .**

White box testing is testing based on analysis of the internal structure of the component or system.

White box testing is also called glass testing or open box testing.

**Types of white box testing is :**

1. Statement coverage
2. Decision coverage
3. Condition coverage

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

Black box testing is testing either functional or non-functional without reference to the internal structure of the system or component.

**Black box testing techniques :**

1. Equivalence Partitioning
2. Boundary Value Analysis
3. Decision Table
4. State Transition Testing

**18).Mention what are the categories of Defects ?**

1. Data Quality / Database Defect

2. Critical Functionality Defect

3. Functionality Defect

4. Security Defect

5. User Interface Defect

**19).Mention what big bang testing is ?**

Big Bang integration testing is testing all components or modules is integrated simultaneously, after which everything is tested as a whole.

Big bang testing has an advantage that everything is finished before integration testing starts.

**20).What is the purpose of exit criteria ?**

Purpose of exit criteria is to define when STOP testing either at the,

(1)End of all testing i.e.: product go live or

(2)End of phases of testing i.e.: hand over from system test to UAT)

**(21)When should “Regression Testing” be performed ?**

When your software application undergoes a code change to ensure that new code has not affected the other parts of the software.

**(22)What is 7 Key principles ? explain in detail**

1. Testing shows presence of defects

2. Exhaustive testing is impossible

3. Early testing

4. Defect clustering

5. The pesticide paradox

6. Testing is context dependent

7. Absence of error fallacy

**(1). Testing shows presence of defects**

Testing can show that defects are present , but cannot prove that there are no defects.

**(2).Exhaustive testing is impossible**

Whole testing is not possible. Testing everything including all combinations of inputs and preconditions is not possible

**(3).Early Testing**

Testing activities should start as early as possible in software or system development life cycle , and to identify and fix the defect

**(4).Defect Clustering**

A small number of modules contain most of the defects discovered during the pre-release testing or are responsible for the most operational failures

**(5).Pesticides Paradox**

If the same tests are repeated overland over again eventually the same set of test cases will no longer find any new defects.

**(6).Testing is Context Dependent**

Different kinds of site are tested differently. Eg: ecomm, banking .

**(7).Absence of Error Fallacy**

If the system built is unusable and does not fulfil the user’s needs and expectations than finding and fixing defects does not help

**(23)Difference between QA v/s QC v/s Tester**

|  |  |  |
| --- | --- | --- |
| **QA** | **QC** | **Tester** |
| Focuses on processes and procedures rather than actual testing on the system | Focuses on actual testing by executing software with intend to identify bug/defect | Focuses on actual testing |
| Process oriented activities | Product oriented activities | Product oriented activities |
| Preventive activities | Corrective process | Preventive process |
| QA is subset of STLC | QC Can be subset of QA | Testing is the subset of QC |

**(24)Difference between smoke and sanity testing?**

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| --- | --- |
| **Smoke Testing** | **Sanity Testing** |
| 1. After receiving a software build smoke testing is use to ensure that critical functionality working fine | 1.After Receiving a software build with minor changes in code and functionality sanity testing is used to ensure that no further issues are introduced due to this changes |
| 1. Objective of smoke testing is “stability” | 2. Objective of sanity testing is “rationality” |
| 1. Smoke testing is performed by Tester and developer | 3.Sanity testing is performed by testers only |
|  |  |

**(24)Difference between Verification and Validation.**

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| --- | --- |
| **Verification** | **Validation** |
| 1.Verification done before coding | 1.Validation done after coding |
| 2.Verification has the level is a kind of development level | 2.Validation has the level is a kind of testing level |
| 3.Verification same as a static testing | 3.Validation same as a dynamic testing |
| 4.Phases include in Verification are User Requirements , System requirements , Technical Specification , Program Specification | 4.Phases include in Validation are Acceptance test , System test , Integration test , Unit test |

**(25)Explain types of performance testing.**

1. Load testing

2. Stress testing

3. Endurance testing

4. Spike Testing

5. Volume Testing

6. Scalability testing

**(26)What is Error, defect, bug and failure?**

**Error** : A mistake in coding is called error.

**Defect** : error found by tester is called defect.

**Bug** : defect accepted by development team is called bug.

**Failure** : If build does not meet the requirements then it is failure

**(27)Difference between Priority and Severity.**

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| **Priority** | **Severity** |
| 1.Priority is absolute and customer focused | 1. Severity is relative and business focused |
| 2.priority is how badly the defect affect the software | 2. Severity is how quickly the defect need to be fixed |
| 3.It is associated with functionality | 3.It is associated with scheduling |
| 4.Its value does not change from time to time | 4.Its value change from time to time |

**(28)What is Bug Life Cycle?**

The duration between the first time defect is found and the time that it Is closed successfully rejected , postponed and deferred is called “Bug life cycle”.

**(29)Explain the difference between Functional testing and Non-functional testing.**

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| --- | --- |
| **Functional Testing** | **Non-Functional Testing** |
| 1.functional testing based on analysis of the functionality of a component or system | 1.Testing the attribute of a component or a system that do not relate to functionality |
| 2.Functional testing will be executed first | 2.Non-functional testing should be performed after functional testing |
| 3.Easy to do manual testing | 3. Tough to do manual testing |
| 4.Business requirement are the input to the functional testing | 4.Performance parameter like speed, scalability are the input to the non-functional testing |
| 5.Describe “what” the product does | 5.Describe “how good” the product works. |

(30)Create a HLR and Test Case of

1.(Instagram, Facebook) first page and chat functionality

2.Facebook login page

Facebook Login Page : <https://www.facebook.com/>

**(31)What is the difference between STLC and SDLC?**

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| **STLC** | **SDLC** |
| 1.STLC is a Software Testing Life Cycle | 1.SDLC is a Software Development Life Cycle |
| 2.Focuses on building a product | 2.Focuses on testing a product |
| 3.A parent process | 3.A child of SDLC process |
| 4.building a product as user requirement | 4.ensuring the product is working as expected |
| 5.SDLC phases are completed before testing | 5.STLC phases start after SDLC phases are completed |
| 6.End goal is to deploy a high quality product to user | 6.End goal is to finding and fixing the bugs/defects |

**(32)What is the difference between test scenarios , test cases , and test script?**

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| SR. NO | **Test Scenarios** | **Test Cases** | **Test Script** |
| 1 | Test Scenario is any functionality that can be tested. | Test case is a set of actions executed to verify particular features or functionality. | Test script is a set of instructions to test an app automatically. |
| 2 | Helps test the end-to-end functionality in an Agile way | Helps in exhaustive testing of an app. | Helps to test specific things repeatedly. |
| 3 | Is more focused on what to test | Is focused on what to test and how to test. | Is focused on the expected result. |
| 4 | Includes an end-to-end functionality to be tested. | Includes test steps, data, expected results for testing. | Includes different commands to develop a script. |
| 5 | Allows quickly assessing the testing scope. | Allows detecting errors and defects. | Allows carrying out an automatic execution of test cases. |

**(33)Explain what test plan is. What is the information that should be covered .**

A document that describing the scope , approach , resources and schedule of intended test activities.

Test plan determining the scope and risks and identifying the objectives of testing.

Test plan also covered level of detailed structure and templets for test documentation.

**(34)What is Priority?**

Priority is absolute and customer focused and priority is how badly the defect affect the software.

**(35)What is Severity?**

Severity is relative and business focused and severity is how quickly the defect need to be fixed.

**(36)Bug Categories are..**

1. Data Quality / Database Defects

2. Critical functionality defects

3. Functionality defects

4. Security defects

5. User Interface defects

**(37)Advantage of Bugzilla**

* **Free and Open-Source** – No licensing cost, making it a budget-friendly choice for organizations.
* **Easy to Use** – Simple web-based interface that allows testers and developers to report and manage bugs efficiently.
* **Customizable Workflow** – Users can define their own workflow, statuses, and rules according to project needs.
* **Email Notifications** – Sends automatic updates to team members when a bug is created, updated, or resolved.
* **Multi-Language Support** – Available in various languages, making it suitable for global teams.

**(38)Difference between Priority and Severity**

|  |  |
| --- | --- |
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**(39)What are the different methodologies in Agile Development Model?**

1.Scrum

2.Kanban

**(40)Explain the difference between Authorization and Authentication in Web Testing. What are the common problems faced in web testing ?**

* "Authentication" refers to the process of verifying a user's identity, like checking if they are who they claim to be by using login credentials. While "Authorization" determines what actions or resources a verified user is allowed to access within the system.
* Common problems encountered in web testing include: cross-browser compatibility issues, performance concerns, security vulnerabilities, user experience (UX) challenges, testing across different devices, data privacy issues, load testing, and ensuring proper functionality across various browser versions and operating systems.

(41)To create HLR and Test Case of web based(WhatsApp web)

WhatsApp Web : <https://web.whatsapp.com/>

Create a Test Cases on WhatsApp Group chat

**(42)When to use usability testing?**

You should use usability testing at any stage of the design process where you want to understand how users interact with your product, particularly when making critical design decisions, before finalizing a design, and throughout development iterations; this includes early prototyping stages, mid-design, and even after launch to identify areas for improvement

**(43)What is the procedure for GUI Testing?**

Graphical User interface (GUI) testing involves a series of steps to ensure that a user interface is functional, usable, and visually consistent. The steps include:

1. **Planning**: Define the scope of testing and identify key areas of the UI
2. **Preparation**: Set up the testing environment with the necessary tools and resources
3. **Test case development**: Create detailed test cases that cover different aspects of the UI
4. **Test execution**: Perform the tests by interacting with the UI as a user would
5. **Issue reporting**: Document any issues or inconsistencies encountered
6. **Fix review**: Review and validate fixes to ensure that issues have been resolved
7. **Continuous testing**: Continue to test and improve the UI