Module 2(Manual Testing)

1. **What is Exploratory Testing?**
   Ans : Though the current trend in testing is to push for automation, exploratory testing is a new way of thinking.

2. **What is traceability matrix?**
   Ans : A traceability matrix is a document that details the technical requirements for a given test scenario and its current state.

3. **What is Boundary value testing?**
   Ans : A traceability matrix is a document that details the technical requirements for a given test.

4. **What is Equivalence partitioning testing?**
   Ans : It is a software testing technique or black-box testing that divides input domain into classes of data, and with the help of these classes of data, test cases can be derived.

5. **What is Integration testing?**
   Ans : Integration Testing is a level of the software testing process where individual units are combined and tested as a group.

6. **What determines the level of risk?**
   Ans : Determining the level of risk usually involves trying to assess not only the likelihood of an identified risk from actually occurring, but also the potential magnitude the consequences this risk could have on an organisation and its stakeholder.

7. **What is Alpha testing?**
   Ans: Alpha Testing is a type of software testing performed to identify bugs before releasing the product to real users or to the public. Alpha Testing is one of the user acceptance testings. This is referred to as alpha testing only because it is done early on, near the end of the development of the software.

8. **What is beta testing?**
   Ans: Beta Testing is performed by real users of the software application in a real environment. Beta testing is one of the types of User Acceptance Testing.

9. **What is component testing?**
   Ans: Component testing is a type of **white box testing** where you validate an individual component of the application before testing the entire application. As a consequence, component testing finds bugs and verifies the functionality of software

10. **What is functional system testing?**
    Ans : Functional System Testing : A requirement that specifies a function that a system or system component must perform.

11. **What is Non-Functional Testing?**
    Ans : Non-functional testing is defined as a type of **Software testing to check non-functional aspects** (performance, usability, reliability, etc) of a software application.

12. **What is GUI Testing?**
    Ans : Graphical User Interface (GUI) testing is the process of testing the system's GUI of the System under Test. GUI testing involves checking the screens with the controls like menus, buttons, icons, and all types of bars – tool bar, menu bar, dialog boxes and windows etc.

13. **What is Adhoc testing?**
    Ans : Adhoc testing is an informal testing type with an aim to break the system. It does not follow any test design techniques to create test cases.

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14. **What is load testing?**
    Ans : Load Testing is done in order to check when the application fails by increasing the number of users and keeping the system resources as constant.

15. **What is stress Testing?**
    Ans : Stress Testing is done in order to check when the application fails by reducing the system resources such as RAM, HDD etc. and keeping the number of users as constant.

16. **What is white box testing and list the types of white box testing?**
    Ans : Testing based on an analysis of the internal structure of the component or system is called white box testing. White box testing is the detailed investigation of internal logic and structure of the code.
    The types of white box testing are:
    1) Statement coverage
    2) Decision coverage
    3) Condition coverage

17. **What is black box testing? What are the different black box testing techniques?**
    Ans : Specification-based testing technique is also known as 'black-box' or input/output driven testing techniques because they view the software as a black-box with inputs and outputs.

    Different black box testing techniques are given below
    a) Equivalence partitioning
    b) Boundary value analysis
    c) Decision tables
    d) State transition testing
    e) Use-case Testing

18. **Mention what are the categories of defects?**
    Ans : there are four main categories of defects that are follows
    1) Error of commision
    2) Error of Omission
    3) Error of Clarity
    4) Error of Speed or Capacity

19. **Mention what bigbang testing is?**
    Ans : In Big Bang integration testing all components or modules is integrated simultaneously, after which everything is tested as a whole. Big Bang testing has the advantage that everything is finished before integration testing starts.

20. **What is the purpose of exit criteria?**
    Ans : Exit criteria are the average number of critical and/or major defects found per page (for example no more than three critical/major defects per page).
    A formal follow-up is carried out by the moderator applying exit criteria

21. **When should "Regression Testing" be performed?**
    Ans : In such cases, Manual execution of test cases increases test execution time as well as costs. Automation of regression test cases is the smart choice in such cases. Extent of automation depends on the number of test cases that remain reusable for successive regression cycles.

22. **Difference between QA v/s QC v/s Tester.**
    Ans : Difference between QA v/s QC v/s Tester is given below

Sr.	Quality Assurance	Quality Control	Testing

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No			
1	Activities which ensure the implementation of processes, procedures and standards in context to verification of developed software and intended requirements.	Activities which ensure the verification of developed software with respect to documented (or not in some cases) requirements.	Activities which ensure the identification of bugs/error/defects in the Software.
2	Focuses on processes and procedures rather than conducting actual testing on the system.	Focuses on actual testing by executing Software with intend to identify bug/defect through implementation of procedures and process.	Focuses on actual testing.
3	Process oriented activities.	Product oriented activities.	Product oriented activities.
4	Preventive activities.	It is a corrective process.	It is a preventive process.
5	It is a subset of Software Test Life Cycle (STLC)	QC can be considered as the subset of Quality Assurance.	Testing is the subset of Quality Control.

23. Difference between Smoke and Sanity?

Ans : the difference between Smoke and Sanity is below

Sr. No	Smoke Testing	Sanity Testing
1	Smoke Testing is performed to ascertain that the critical functionalities of the program is working fine	Sanity Testing is done to check the new functionality / bugs have been fixed
2	The objective of this testing is to verify "stability" of the system in order to with more rigorous testing	The objective of the testing is to verify the "rationality" of the system in order to proceed with more rigorous testing
3	This testing is performed by the developers or testers	Sanity testing is usually performed by testers
4	Smoke testing is usually documented or scripted	Sanity testing is usually not documented and is unscripted
5	Smoke testing is a subset of Regression testing	Sanity testing is a subset of Acceptance testing
6	Smoke testing exercises the entire system from end to end	Sanity testing exercises only the particular component of the entire system
7	Smoke testing is like General Health Check Up	Sanity Testing is like specialized health check up

24. Difference between verification and Validation

Ans : the difference between Verification and Validation is below

Sr. No	Verification	Validation
Definition	The process of evaluating work-products (not the actual final product) of a development phase to determine whether they meet the specified requirements for that phase.	The process of evaluating software during or at the end of the development process to determine whether it satisfies specified business requirements.
Objective	To ensure that the product is being built according to the requirements and design specifications. In other words, to ensure that work products meet their specified requirements.	To ensure that the product actually meets the user's needs, and that the specifications were correct in the first place. In other words, to demonstrate that the product fulfills its intended use when placed in its intended environment.
Question	Are we building the product right?	Are we building the right product?

Evaluation Items	Plans, Requirement Specs, Design Specs, Code, Test Cases	The actual product/software.
Activities	· Reviews · Walkthroughs · Inspections	· Testing

25. Explain types of Performance testing.

Ans :a) Load testing

   b) Stress testing

   c) Endurance testing

   d) Spike testing

   e) Volume testing

   f) Scalability testing

26. What is Error, Defect, Bug and failure?

Ans : A mistake in coding is called error, error found by tester is called defect, defect accepted by development team then it is called bug, build does not meet the requirements then it is failure.

27. Difference between Priority and Severity

Ans : Priority is Relative and Business-Focused. 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 the developer mentioning the time frame to fix the defect. If high priority is mentioned then the developer has to fix it at the earliest. The priority status is set based on the customer requirements.

For example: If the company name is misspelled in the home page of the website, then the priority is high and severity is low to fix it.

Type of Priority are :

1)   Low   2) Medium   3)High   4) Critical

       Severity is absolute and Customer-Focused. It is the extent to which the defect can affect the software. In other words it defines the impact that a given defect has on the system.

For example: If an application or web page crashes when a remote link is clicked, in this case clicking the remote link by an user is rare but the impact of application crashing is severe. So the severity is high but priority is low.

Type of Severity are :

1)   Critical   2) Major   3) Moderate   4) Minor   5) Cosmetic

28. What is Bug Life Cycle?

Ans : Once the reported defect is fixed, the tester needs to re-test to confirm the fix. This is usually done by executing the possible scenarios where the bug can occur. Once retesting is completed, the fix can be confirmed and the bug can be closed. This marks the end of the bug life cycle.

29. Explain the difference between Functional testing and NonFunctional testing.

Ans :

Sr. No	Functional Testing	Non-Functional Testing
1	Functional testing is performed using the Non-Functional specification provided by the client and verifies the system against the functional requirements	testing checks the Performance, reliability, scalability and other non-functional aspects of the software system.
2	Functional testing is executed first	Non functional testing should be performed after functional testing
3	Manual testing or automation tools can be used for functional testing	Using tools will be effective for this testing
4	Business requirements are the inputs to functional	Performance parameters like speed ,

	testing	scalability are inputs to non-functional testing.
5	Functional testing describes what the product does	Nonfunctional testing describes how good the product works
6	Easy to do manual testing	Tough to do manual testing

30. **What is the difference between the STLC (Software Testing Life Cycle) and SDLC (Software Development Life Cycle)?**

Ans:

Sr. No	Functional Testing	Non-Functional Testing
1	SDLC is a structure imposed on the development of a software product that defines the process for planning, implementation, testing, documentation, deployment, and ongoing maintenance and support.	STLC works on entry and exit criteria structure.
2	The methodology within the SDLC process can vary across industries and organizations	In an Ideal world, you will not enter the next stage until the exit criteria for the previous stage is met. But practically this is not always possible.
3	SDLC Phases : Requirement gathering , Analysis, Design, Implementation, Testing, Maintenance	STLC Phases : Requirement analysis, Test Planing, Test case Development, Environment setup, Test Execution, Test cycle closure

31. **What is the difference between test scenarios, test cases, and test script?**

Ans : 1) Test Scenario : A Scenario is any functionality that can be tested. It is also called Test Condition, or Test Possibility.

2) Test Cases : Test cases involve the set of steps, conditions and inputs which can be used while performing the testing tasks.

3) Test Script : A test script in software testing is a set of instructions that will be performed on the system under test to test that the system functions as expected.

32. **Explain what Test Plan is? What is the information that should be covered.**

Ans : Test Planning in STLC is a phase in which a Senior QA manager determines the test plan strategy along with efforts and cost estimates for the project

The following information should be covered.

1) Preparation of test plan/strategy document for various types of testing

2) Test tool selection

3) Test effort estimation

4) Resource planning and determining roles and responsibilities.

5) Training requirement

33. **What is priority?**

Ans : Priority is Relative and Business-Focused. 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 the developer mentioning the time frame to fix the defect.

34. **What is severity?**

Ans : Severity is absolute and Customer-Focused. It is the extent to which the defect can affect the software. In other words it defines the impact that a given defect has on the system.

35. **Bug categories are...**

Ans : **1)** Security

2) Database
3) **Functionality (Critical/General)**
4) **UI**

36. Advantage of Bugzila.

Ans :1) bugzilla can serve as a powerful project synchronization tool. Every aspect of the tickets can be tracked; status changes, comments, added watchers, who's currently working on the issue, and if it's related to another issue.

2) Unlimited Space

3) For companies with a need to service many different projects, or iterations of the same project, bugzilla handles this task exceptionally well.

4) low is customizable by the simply selection of a checkbox

37. What are the different Methodologies in Agile Development Model ?

Ans : 1) 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.

2) Agile Methods break the product into small incremental builds.

3) Each iteration typically lasts from about one to three weeks.

4) Every iteration involves cross functional teams working simultaneously on various areas like planning, requirements analysis, design, coding, unit testing, and acceptance testing.

5) At the end of the iteration a working product is displayed to the customer and important stakeholders.

38. Explain the difference between Authorization and Authentication in Web testing. What are the common problems faced in Web testing?

Ans : Authorization means that one can use your application without any permission and authentication means that the an application allows user to login using any username or password choosen by the user.

The common problems faced in web testing are like Improper error/warning/UI messages , Spelling mistakes, Alignment problem etc.

39. When to used Usablity Testing?

Ans : Usability testing often happens towards the end of the product development process and is seen as a way to "catch bugs" in the product. That's not usability testing, that's QA. Usability testing needs to happen at a point where you can not just learn how usable your product is, but when you can take those learnings and make improvements so that your product is more usable.

40. What is the procedure for GUI Testing?

Ans : Graphical User Interface (GUI) testing is the process of testing the system's GUI of the System under Test. GUI testing involves checking the screens with the controls like menus, buttons, icons, and all types of bars – tool bar, menu bar, dialog boxes and windows etc.

Procedure for GUI Testing is :

1) Check all the GUI elements for size, position, width, length and acceptance of characters or numbers. For instance, you must be able to provide inputs to the input fields.

2) Check you can execute the intended functionality of the application using the GUI

3) Check Error Messages are displayed correctly

4) Check for Clear demarcation of different sections on screen

5) Check Font used in application is readable

6) Check the alignment of the text is proper

7) Check the Color of the font and warning messages is aesthetically pleasing

8) Check that the images have good clarity

9) Check that the images are properly aligned

10) Check the positioning of GUI elements for different screen resolution.

THE END