Module 2 (Manual Testing)

1.What is Exploratory Testing

= > Exploratory testing is a concurrent process where Test design, execution and logging happen simultaneously.

2. What is traceability matrix?

=> To protect against changes you should be able to trace back from every system component to the original requirement that caused its presence.

3. What is Boundary value testing?

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

4. What is Equivalence partitioning testing?

=> Equivalence partitioning is the process of defining the optimum number of tests by: Reviewing documents such as the Functional Design Specification and Detailed Design Specification, and identifying each input condition within a function.

5.What is Integration testing?

=> Integration Testing is a level of the software testing process where individual units are combined and tested as a group.

6. What is component testing?

=> The testing of individual software components.

7. What is functional system testing?

=> A requirement that specifies a function that a system or system component must perform a Requirement may exist as a text document and/or a model

8. What is Non-Functional Testing?

=> Non-Functional Testing means Testing the attributes of a component or system that do not relate to functionality, e.g. reliability, efficiency, usability, interoperability, maintainability and portability

9. What is GUI Testing?

=> 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.

10. What is Adhoc testing?

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

11. What is load testing?

=> Its a 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 loads to determine at what point the system's response time degrades or fails.

12. What is stress Testing?

=> 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.

13. What is white box testing and list the types of white box testing?

=> Testing based on an analysis of the internal structure of the component or system.

Types of White Box Testing :

- Web based testing
- Desktop based testing

- Mobile based testing
- Game based testing

14. What is black box testing?

=> Testing, either functional or non-functional, without reference to the internal structure of the component or system.

15. What are the different black box testing techniques?

=> Black Box testing Techniques

- Equivalence partitioning
- Boundary value analysis
- Decision tables
- State transition testing
- Use case Testing

16. Mention what are the categories of defects

1)Data Qualty/Database defects
2) Critical Functionality Defects
3) Functionality defects
4) Security Defects
5) User Interface defects

17. Mention what bigbang testing is?

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.

=> The major disadvantage is that in general it is time consuming and difficult to trace the cause of failures because of this late integration.

=> Here all component are integrated together at once, and then tested.

18. What is the purpose of exit criteria?

=>Defines the items that must be completed before testing can be concluded.

=>In an ideal world you will not enter next stage until the exit criteria for the previous stage is met but practically this is not always possible.

19.When should "Regression Testing" be performed?

Regression testing is necessary after any feature (or application) enhancement, bug fix, or configuration changes. For example, when developers add a new widget to an application.

20. 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 Errors Fallacy

21. Difference between QA v/s QC v/s Tester

=>

QA (Quality Assurance)	QC (Quality Control)	Tester
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.

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.
Process oriented activities.	Product oriented activities.	Product oriented activities.
Preventive activities.	It is a corrective process	It is a preventive process.
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.

22.Difference between Smoke and Sanity?

SMOKE TESTING	SANITY TESTING
check critical functionality	check new functionality
it is done in initial stage	it is done after 30 build
it is check stability	it check sanity/relationality
part of acceptance testing	part of regression testing
general health checkup	advance health checkup
done by tester or developer	done by tester
it check system end to	it check only a particular

end	function of entire system
20 test cases it should take 30 min to test sanity testing	

23. Difference between verification and Validation

Verification	Validation
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
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.
Are we building the product right?	Are we building the right product?

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

24. Explain types of Performance testing.

- Load testing
- Stress testing
- Endurance testing
- Spike testing
- Volume testing
- Scalability testing

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

=> 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.

26.Difference between Priority and Severity

Priority	Severity
Defined by the impact on business.	Defined by the impact of a specific problem on any application's functionality.
Category decided by developers or product owners.	Category decided by testers.
Deals with the timeframe or order to fix the defects.	Deals with the technical aspects of the application.
The priority value is subjective and may change after comparing with other	The value does not change with time, it's fixed.

defects.

27.What is 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.

28.Explain the difference between Functional testing and Non Functional testing

Functional testing	Non-functional testing
A requirement that specifies a function that a system or system component must perform	Testing the attributes of a component or system that do not relate to functionality, e.g. reliability, efficiency, usability, interoperability, maintainability and portability.
Functional testing is executed first	Non functional testing should be performed after functional testing
Manual testing or automation tools can be used for functional testing	Using tools will be effective for this testing
Business requirements are the inputs to functional testing	Performance parameters like speed , scalability are inputs to non-functional testing.
Functional testing describes what the product does	Nonfunctional testing describes how good the product works
Easy to do manual testing	Tough to do manual testing

Types of Functional testing are	Types of Nonfunctional testing are
· Unit Testing	· Performance Testing
· Smoke Testing	· Load Testing
· Sanity Testing	· Volume Testing
· Integration Testing	· Stress Testing
· White box testing	· Security Testing
· Black Box testing	· Installation Testing
· User Acceptance testing	· Penetration Testing
· Regression Testing	· Compatibility Testing
	· Migration Testing

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

SDLC	STLC
SDLC is mainly related to software development.	STLC is mainly related to software testing.
Besides development other phases like testing is also included.	It focuses only on testing the software.
SDLC involves total six phases or steps.	STLC involves only five phases or steps.
In SDLC, more number of members (developers) are required for the whole process.	In STLC, less number of members (testers) are needed.
In SDLC, development team makes the plans and designs based on the requirements.	In STLC, testing team(Test Lead or Test Architect) makes the plans and designs.
Goal of SDLC is to complete successful development of software.	Goal of STLC is to complete successful testing of software.
It helps in developing good quality software.	It helps in making the software defects free.

SDLC phases are completed before the STLC phases.	STLC phases are performed after SDLC phases.
Post deployment support , enhancement , and update are to be included if necessary.	Regression tests are run by QA team to check deployed maintenance code and maintains test cases and automated scripts.
Creation of reusable software systems is the end result of SDLC.	A tested software system is the end result of STLC.

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

=> test scenarios:-Test scenarios are one liner but it is associated with multiple test cases.

=>test cases:-Test cases are set of positive & negative executable steps of test scenario which has a set of pre-condition, test data, expected result, actual result and post-condition.

=>test script:-A set of sequential instruction that detail how to execute a core business function.

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

=> 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.

=>Activities in requirements phase testing.

-preparation of test plan/strategy document for various types of testing

-test tool selection

-test effort estimation

-resource planning and determining role and responsibilities

-training requirements

=> deliverables of requirements phase testing

-test plan/test strategy document

-effort estimation document

32. What is priority?

=> Priority is relative and business focused. Priority defines the order in which we should resolve a defects 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 defects . if the high priority is mentioned then the earliest. The priority status is set based on the customer requirements.

33. What is severity?

=> Severity is absolute and customer focused- It is the Extends to which the defects can affect the software.

34. Bug categories are…

=> Security, Database, Functionality (Critical/General), UI

35. Advantage of Bugzila :-

=>Key features of Bugzilla includes

Advanced search capabilities

E-mail Notifications

Modify/file Bugs by e-mail

Time tracking

Strong security

Customization

Localization

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

=>

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

Authentication	Authorization
In the authentication process, the identity of users are checked for providing the access to the system.	While in authorization process, a the person's or user's authorities are checked for accessing the resources.
In the authentication process, users or persons are verified.	While in this process, users or persons are validated.
It is done before the authorization process.	While this process is done after the authentication process.
It needs usually the user's login details.	While it needs the user's privilege or security levels.
Authentication determines whether the person is user or not.	While it determines What permission does the user have?
Generally, transmit information through an ID Token.	Generally, transmit information through an Access Token.

=>Cross browser compatibility, responsiveness, cross device compatibility, security, integration testing, performance testing, application getting slow, usability testing, entry and exit points, checking the standards and compliance, firewalls, accessibility testing, project deadline, user experience, web service requests, user input validation.

38. What is Alpha testing?

=>It is always performed by the developers at the software development site. Sometimes it is also performed by Independent Testing Team. Alpha Testing is not open to the market and public It is conducted for the software application and project. It is always performed in Virtual Environment. It is always performed within the organization. It is the form of Acceptance Testing.

39. What is beta testing?

It is always performed by the developers at the software development site. Sometimes it is also performed by Independent Testing Team. Alpha Testing is not open to the market and public It is conducted for the software application and project. It is always performed in Virtual Environment. It is always performed within the organization. It is the form of Acceptance Testing.