Module–2

1) What Is Exploratory Testing?

ANS -> Exploratory testing is an approach to software testing that is often described as simultaneous learning, test design, and execution.

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 -> Boundary value analysis 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?

ANS -> Equivalence partitioning is a technique that divides the input domain of a system into partitions or classes that are expected to produce the same output or behavior.

5) What is Integration testing?

ANS -> Integration Testing - Testing performed to expose defects in the interfaces and in the interactions between integrated components or systems

6) What determines the level of risk?

ANS -> The likelihood of an adverse event and the impact of the event is a determines the level of risk.

7) What is Alpha testing?

ANS -> Alpha Testing is definitely performed and carried out at the developing organizations location with the involvement of developers.

8) What is beta testing?

ANS -> Beta Testing is always performed at the time when software product and project are marketed.

9) What is component testing?

ANS -> component Testing is a form of closed-box testing,

meaning that the test evaluates the behavior of the program without considering the details of the underlying code.

10) What is functional system testing?

ANS -> functional system is a type of testing that seeks to establish whether each application feature works as per the software requirements

11) What is Non-Functional Testing?

ANS -> Non-Functional Testing: Testing the attributes of a

component or system that do not relate to functionality, e.g. reliability, efficiency, usability, interoperability, maintainability and portability

12) What is GUI Testing?

ANS -> Full form of Graphic user interface testing (GUI).

A testing the process of ensuring proper fuctionality of the graphical user interface (GUI) for a specific application.

13) What is Adhoc testing?

ANS -> Adhoc testing is an informal testing type with an aim to break the system, Adhoc testing can be achieved with the testing technique called Error Guessing.

14) What is load testing?

ANS -> Load testing is a kind of performance testing which determines a system’s performance under real-life load conditions. This testing helps determine how the application behaves when multiple users access it simultaneously.

15) What is stress Testing?

ANS -> Stress testing is 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 or database load

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

ANS -> White box testing is also called glass testing or open box testing. In order to perform white box testing on an application, the tester needs to possess knowledge of the internal working of the code

- **Unit Testing**
- **Static Analysis**
- **Dynamic Analysis**
- **Statement Coverage**
- **Branch Testing**
- **Path Testing**

- **Loop Testing**

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

ANS -> Black box testing is a software testing method used to test a system without having any prior knowledge of the internal structure of the software under test

18) Mention what are the categories of defects?

ANS -> Errors of commissions, errors of omissions, errors of clarity , and error of speed and capacity.

19) Mention what bigbang testing is?

ANS -> Bigbang testing is an integration testing strategy wherein all units are linked at once, resulting in a complete system

20) What is the purpose of exit criteria?

ANS -> The purpose of exit criteria is Exit criteria is used to determine when testing at any stage is complete The set of generic and specific conditions, agreed upon with the stakeholders, for permitting a process to be officially completed

21) When should "Regression Testing" be performed?

ANS -> Testing of a previously tested program following modification to ensure that defects have not been introduced or uncovered in unchanged areas of the software, as a result of the changes made. It is performed when the software or its environment is changed.

22) What is 7 key principles? Explain in detail?

ANS -> testing shows presence of defects, Exhaustive testing is not possible, Early testing, Defect clustering, Pesticide paradox, Testing is context dependent, Absence of error fallacy,

Pareto principle to software testing state that 80% of software defect comes from 20% of modules. Pesticide paradox: repeating the same test cases, again and again, will not find new bugs.

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

ANS -> Qa, Qc, and testing are like a chain that works together to ensure a high-quality product. Qa sets the standards for how it should be done,qc ensure standards are followed, and testing checks that everything is up to the quality standards

24) Difference between Smoke and Sanity?

ANS -> Smoke testing is done to assure that the acute functionalities of program is working fine sanity testing is done

to check the bugs have been fixed after the build. Smoke testing

25) Difference between verification and Validation

ANS -> Verification is a process of determining if the software

is designed and developed as per the specified requirements. Validarion is the process of checking if the software (end product) has met the client’s true needs and expectations.

26) Explain types of Performance testing.

ANS ->

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

27) What is Error, Defect, Bug and failure?

ANS -> Failure: a difference from the expected result. this is the problem you observe. Fault: the cause of the failure. Error: the mistake which caused the fault to occur.

28) Difference between Priority and Severity

ANS -> Priority is term that defines how fast we need to fix a defect. Severity is basically a parameter that denotes the total impact of a given defect on any software.

29) What is Bug Life Cycle?

ANS -> The bug life cycle in testing refers to a cycle of defects

in which it goes through different states throughout its life. The life cycle begins with a new defect discovered by a tester while testing the application.

30) Explain the difference between Functional testing and NonFunctional testing

ANS -> Functional testing checks the application's processes against a set of requirements or specifications. Non-functional testing assesses application properties that aren't critical to functionality but contribute to the end-user experience, like performance and reliability under load.

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

ANS->

no.	SDLC	STLC
1.	SDLC involves total six phases or steps.	STLC involves only five phases or steps.
2.	SDLC phases are completed before the STLC phases	STLC phases are performed after SDLC phases.
3.	SDLC is mainly related to software development.	STLC is mainly related to software testing.
4.	Creation of reusable software systems is the end result of SDLC.	A tested software system is the end result of STLC.
5.	It helps in developing good quality software.	It helps in making the software defects free
6.	Goal of SDLC is to complete successful development of software.	Goal of STLC is to complete successful testing of software.

32)What is the difference between test scenarios, test cases, and test script?
ANS-> A test case is a document with instructions on testing the specific functionality of an application. Test Script is a program that runs various test data on the functionality of an application. Test scenarios serve as an outline for writing test cases.

Test scenarios-> The least detailed type of documentation is the test scenario. A test scenario is a description of an objective a user might face when using the program. An example might be “Test that the user can successfully log out by closing the program.” Typically, a test scenario will require testing in a few different ways to ensure the scenario has been satisfactorily covered.

Like test cases, the flexibility that comes with using test scenarios creates similar benefits and drawbacks. Testing skill and domain knowledge make it easier for the tester to break test scenarios down into the relevant test ideas, select the approach that makes most sense, and perform tests that find important problems.

Test case-> The second most detailed way of documenting testing work is to use test cases. Test cases describe a specific idea that is to be tested, without detailing the exact steps to be taken or data to be used.

This flexibility from test cases is both good and bad. Flexibility is beneficial when the tester is familiar with testing and familiar with the software under test and the current set of risks in the software.

On the other hand, if the tester does not have a good understanding of how the program is used, the recent risks to the program, and how to evaluate those risks as a tester, they

may not have the information or skill they need to assess the actions required to reveal important bugs.

test script-> This story begins with the most detailed way to document testing, the test script. When people talk about test scripts, they usually mean a line-by-line description of all the actions and data needed to perform a test.

These scripts also include specific results that are expected for each step, such as observing a change in the UI. An example step might be “Click the ‘X’ button,” with an example result of “The window closes.”

When a tester first starts a new job, they might not know much about the product, the business domain, or even software testing.

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

ANS->A Test Plan is a detailed document that catalogs the test strategies, objectives, schedule, estimations, deadlines, and resources required to complete that project. Think of it as a blueprint for running the tests needed to ensure the software is working correctly – controlled by test managers.

34) What is priority?

ANS-> What is Priority in Testing? One can define Priority as a parameter for deciding the order in which one can fix the defect. In this, the defect with a higher priority first needs to get fixed. Priority basically defines the order in which one would resolve any given defect.

35)What is severity?
ANS-> Definition. Severity is a term that denotes how severely a defect can affect the functionality of the software. Priority is a term that defines how fast we need to fix a defect. Parameter. Severity is basically a parameter that denotes the total impact of a given defect on any software.

36)Bug categories are…
ANS->Software bugs can be classified into multiple categories based on their nature and impact. Broadly speaking, these categories include Functional Bugs, Logical Bugs, Workflow Bugs, Unit Level Bugs, System-Level Integration Bugs, Out of Bound Bugs, and Security Bugs.
Performance Bugs: No user wants to use software with poor performance. Software bugs that lead to degraded speed, stability, increased response time, and higher resource consumption are considered performance bugs.

Security Bugs: While using software, security is the biggest concern of a user. Software with poor security will not only put the user's data at risk but will also damage the overall image of the organization which may take years to recuperate.

Unit Level Bugs: Unit level bugs are fairly common in software development and do not cause much damage to it as well. Facing basic logic bugs or calculation errors are considered unit-level bugs. The testing team along with the agile team test a small part of the code as a whole.

Functional Bugs: Software is as good as the feature it provides. If any of the functionality of a software is

compromised, the number of users will start to decline drastically until it becomes functional again.

37)Advantage of Bugzila.
ANS-> t improves the quality of the product. It enhances the communication between the developing team and the testing team. It has the capability to adapt to multiple situations.
- Flexibility: Bugzilla can be modified to fit your unique process and requirements.
- Communication: Bugzilla enhances communication between the developing team and the testing team.
- Ease of use: Bugzilla is easy to use and its user interface is understandable for people without technical knowledge.
- Notifications: All notifications are done via email, so any update on a bug will be notified to the concerned person or group.
- Scheduled reporting: Bugzilla has a scheduled reporting feature.
- Deadlines: Bugzilla allows you to select a deadline date and status of the bug

38)Difference between priority and severity
ANS->Priority is a term that defines how fast we need to fix a defect. Severity is basically a parameter that denotes the total impact of a given defect on any software. Priority is basically a parameter that decides the order in which we should fix the defects. Severity relates to the standards of quality.

no.	Parameters	Severity in Testing	Priority in Testing
1	Parameter	Severity is basically a parameter that denotes the total impact of a given defect on any software.	Priority is basically a parameter that decides the order in which we should fix the defects.
2	Relation	Severity relates to the standards of quality.	Priority relates to the scheduling of defects to resolve them in software.
3	Value	The value of severity is objective.	The value of priority is subjective.
4	Change of Value	The value of Severity changes continually from time to time.	The value of Priority changes from time to time.

39)What are the different Methodologies in Agile Development Model?
ANS->Agile methodology is a “step by step” dynamic focused on short-term visibility but never losing the long-term product goal. There are 5 main Agile methodologies: Scrum, Kanban, Extreme Programming, Lean Development e Crystal

40) Explain the difference between Authorization and Authentication in Web testing.What are the common problems faced in Web testing?
ANS->

no.	Authentication	Authorization
1	In the authentication process, users or persons are verified.	While in this process, users or persons are validated.
2	It is done before the authorization process.	While this process is done after the authentication process.
3	It needs usually the user's login details.	While it needs the user's privilege or security levels.
4	Generally, transmit information through an ID Token.	Generally, transmit information through an Access Token.
5	The user authentication is visible at user end.	The user authorization is not visible at the user end.