**Module–2(Manual Testing)**

1. What is Exploratory Testing?

Exploratory testing is an approach to software testing that is often described as simultaneous learning, test design, and execution. It focuses on discovery and relies on the guidance of the individual tester to uncover defects that are not easily covered in the scope of other tests.

2. What is traceability matrix?

A traceability matrix is a document that details the technical requirements for a given test scenario and its current state. It helps the testing team understand the level of testing that is done for a given product. The traceability process itself is used to review the test cases that were defined for any requirement.

3. What is Boundary value testing?

BVA is another Black Box Test Design Technique, which is used to find the errors at boundaries of input domain (tests the behavior of a program at the input boundaries) rather than finding those errors in the centre of input.

4. What is Equivalence partitioning testing?

**Equivalence Partitioning Method** is also known as Equivalence class partitioning (ECP). It is a [software testing](https://www.geeksforgeeks.org/software-testing-basics/) technique or [black-box testing](https://www.geeksforgeeks.org/software-engineering-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. An ideal test case identifies class of error that might require many arbitrary test cases to be executed before general error is observed.

5. What is Integration testing?

**Integration Testing** is defined as a type of testing where software modules are integrated logically and tested as a group. A typical software project consists of multiple software modules, coded by different programmers. The purpose of this level of testing is to expose defects in the interaction between these software modules when they are integrated

6. What determines the level of risk?

The level of risk is determined by analyzing the values assigned to the likelihood of threat occurrence, and the resulting impact of threat occurrence

7. What is Alpha testing

Alpha testing is the initial phase of validating whether a new product will perform as expected. Alpha tests are carried out early in the development process by internal staff and are followed up with beta tests, in which a sampling of the intended audience actually tries the product out.

8. What is beta testing

In software development, a beta test is the second phase of software testing in which a sampling of the intended audience tries the product out. Beta is the second letter of the Greek alphabet. Originally, the term alpha test meant the first phase of testing in a software development process.

9. What is component testing?

Component testing, also known as program or module testing, is done after unit testing. In this type of testing those test objects can be tested independently as a component without integrating with other components e.g. modules, classes, objects, and programs. This testing is done by the development team.

10. What is functional system testing

Functional testing is a type of testing that seeks to establish whether each application feature works as per the software requirements. Each function is compared to the corresponding requirement to ascertain whether its output is consistent with the end user's expectations.

11. What is Non-Functional Testing

**Non-Functional Testing** is defined as a type of Software testing to check non-functional aspects (performance, usability, reliability, etc) of a software application. It is designed to test the readiness of a system as per nonfunctional parameters which are never addressed by functional testing.

12. What is GUI Testing

There are two types of interfaces for a computer application. Command Line Interface is where you type text and computer responds to that command. GUI stands for Graphical User Interface where you interact with the computer using images rather than text.

13. What is Adhoc testing

**Ad hoc Testing** is an informal or unstructured software testing type that aims to break the testing process in order to find possible defects or errors at an early possible stage. Ad hoc testing is done randomly and it is usually an unplanned activity which does not follow any documentation and test design techniques to create test cases.

14. What is load testing

Load testing is a type of [performance testing](https://stackify.com/best-performance-testing-tools/) that simulates a real-world load on any software, application, or website. Without it, your application could fail miserably in real-world conditions. That’s why we build tools like [Retrace](https://stackify.com/retrace/) to help you [monitor application performance](https://stackify.com/fundamentals-web-application-performance-testing/) and fix bugs before your code ever gets to production. Load testing examines how the system behaves during normal and high loads and determines if a system, piece of software, or computing device can handle high loads given a high demand of end-users.

15 What is stress Testing

**Stress Testing** is a type of software testing that verifies stability & reliability of software application. The goal of Stress testing is measuring software on its robustness and error handling capabilities under extremely heavy load conditions and ensuring that software doesn’t crash under crunch situations. It even tests beyond normal operating points and evaluates how software works under extreme conditions.

16. What is the purpose of exit criteria

Exit criterion is used to determine whether a given test activity has been completed or NOT. Exit criteria can be defined for all of the test activities right from planning, specification and execution. Exit criterion should be part of test plan and decided in the planning stage.

17. When should "Regression Testing" be performed?

Regression testing can be performed on a new build when there is a significant change in the original functionality. It ensures that the code still works even when the changes are occurring. Regression means Re-test those parts of the application, which are unchanged.

18. What is 7 key principles?

7 Principles of Software Testing

1. Testing shows presence of defects
2. Exhaustive testing is not possible
3. Early testing
4. Defect clustering
5. Pesticide paradox
6. Testing is context dependent
7. Absence of errors fallacy

19. Difference between Smoke and Sanity

* Smoke Testing has a goal to verify “stability” whereas Sanity Testing has a goal to verify “rationality”.
* Smoke Testing is done by both developers or testers whereas Sanity Testing is done by testers.
* Smoke Testing verifies the critical functionalities of the system whereas Sanity Testing verifies the new functionality like bug fixes.
* Smoke testing is a subset of acceptance testing whereas Sanity testing is a subset of Regression Testing.

20. Difference between verification and Validation

Verification is a process of determining if the software is designed and developed as per the specified requirements. Validation is the process of checking if the software (end product) has met the client's true needs and expectations

21. Explain types of Performance testing

### Load testing

[Load testing](http://searchsoftwarequality.techtarget.com/definition/load-testing) measures system performance as the workload increases. That workload could mean concurrent users or transactions.The system is monitored to measure response time and system staying power as workload increases. That workload falls within the parameters of normal working conditions.

### Stress testing

Unlike load testing, [stress testing](http://searchsoftwarequality.techtarget.com/definition/stress-testing) — also known as fatigue testing — is meant to measure system performance outside of the parameters of normal working conditions. The software is given more users or transactions that can be handled. The goal of stress testing is to measure the software stability. At what point does software fail, and how does the software recover from failure?