Module 2- Manual Testing

1 – What is software testing ?

Ans : **Software Testing** is a method to check whether the actual software product matches expected requirements and to ensure that software product is[Defect](https://www.guru99.com/defect-management-process.html)free. It involves execution of software/system components using manual or automated tools to evaluate one or more properties of interest. The purpose of software testing is to identify errors, gaps or missing requirements in contrast to actual requirements.

2 – What is exploratory testing ?

Ans : **Though the current trend in testing is to push for automation**,

exploratory testing is a new way of thinking. **Automation has its limits**

3 – What is tracebility matrix ?

Ans : Test conditions should be able to be linked back to their sources in the test basis, this is known as traceability.

4- 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**

~ Boundary value analysis is a method which **refines** equivalence

partitioning.

~ Boundary value analysis generates test cases that highlight errors better

than equivalence partitioning.

~ The trick is to concentrate software testing efforts at the extreme ends

of the equivalence classes.

~ At those points when input values change from valid to invalid errors

are most likely to occur.

~ Boundary Value Analysis (BVA) uses the same analysis of partitions as

EP and is usually used in conjunction with EP in test case design

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5 – What is equivalence partitioning testing ?

Ans : Equivalence partitioning testing is a process of defining optimum number test by reviewing documents such as the functional design specification and detailed design specification , and indentifying each input condition within a function .

6 – What is integration testing ?

Ans :~ Testing perfomed to expose defects in the interfaces and in the interactions between integrated components or systems.

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

7 – What determines the level of risk ?

Ans : There are two types of risk they following

1. Project type risk
2. Product type risk

8 - What is alpha testing ?

Ans : Alpha testing is always performed at the time of acceptance testing when developers testing the product and project to check wether it meets the use requirements or not. Unit testing testing , integration testing and system testing when combinined are known as alpha testing .

9 – What is beta testing ?

Ans : Beta testing performed and carried out by users out bye users or you can people at their own locations and site using customer data and only a kind of black boxing testing.

~ Beta testing is always performed at the when software product and project are marketed.

~ beta testing can be considered “ pre –release” testing and ‘’field testing ‘’.

10- what is component testing ?

Ans : 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.

11 – What is functional system testing ?

Ans : A requirement that specifies a function that a system orsytem component must perform.

A requirement may exist as a text doucument and or a model .

There is two type of techniques:

~ Requirement based functional testing

~ Process based testing

12- what is non- functional testig ?

Ans : Testing the attribute of a component or system that do notrelate to functionality e.g. reliability ,efficiency, usability, interloperability ,maintainability,

13- 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.

14 : What is adhoc testing ?

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

~Main aim of this testing technique called error guessing.

~ Adhoc testing can be achived with the testing technique called error guessing.

~The error guessing is a technique where the experienced and good testers are

15 : What is white box testing and list the types of white box testing ?

Ans: **White Box Testing: *Testing based on an analysis of the internal***

***structure of the component or system.***

⚫ **Structure-based testing** technique is also known as **‘white-box’**

or **‘glass-box’** testing technique because here **the testers require**

**knowledge of how the software is implemented, how it work**

~ There are 3 type of white box testing

1. Statement coverage
2. Decisin coverage
3. Condition covrage

16 – What is black box testing? What are the different black box testing techniques?

Ans : The technique of testing without having **any knowledge of the**

**interior workings of the application** is Black Box testing.

~ This are the following tecqniques of block box testing :

\* Equivalence partitioning

Boundary value analysis

\* Decision tables

\* State transition testing

\* Use-case Testing

\* Other Black Box Testing

\* Syntax or Pattern Testing

17 – Menstion what are the categories of defect ?

Ans : 1)Data Quality/Database Defects

2) Critical functionality defects

3) Functinality defects

18- Mention what big band testing is?

Ans :

19- What is the of exit criteria?

Ans :

20- When should be ‘ Regression testing ‘ be performed?

Ans :

21- What is 7 key principles? Explain in detail?

Ans: 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 : Testing everything including allcombinationof inputs and precondition is not possible.

3> Early Testing: Testing activities should start as early as possible in the software

or system development life cycle, and should be focused on

defined objectives.

4) Defect Clustering : A small number of modules contain most of the defects

discovered during pre-release testing, or are responsible for the

most operational failures.

5) Pesticide Paradox : If the same tests are repeated over and over again, eventually the same

set of test case will no longer find any new defects.

6) Testing is Context Dependent: Different kinds of sites are tested differently.

7) Absence of Errors Fallacy: If the system built is unusable and does not fulfill the user’s needs and

expectations then finding and fixing defects does not help.

22: Difference between QA/QC/TESTER.

Ans: QA: ~ Activities which ensure theimplementation of processes,procedures and standards incontext to verification ofdeveloped software and intendedrequirements.

~ Focuses on processes andprocedures rather than conductingactual testing on the system.

~ Process oriented activities.

~ Preventive activities.

~ It is a subset of Software Test LifeCycle (STLC).

QA: ~ Activities which ensure theverification of developedsoftware with respect todocumented (or not in somecases) requirements

~ Focuses on actual testing byexecuting Software with intendto identify bug/defect throughimplementation of proceduresand process.

~ Product oriented activities.

~ Preventive activities.

~ QC can be considered as thesubset of Quality Assuranc

TESTER:~ Activities which ensurethe identification ofbugs/error/defects in theSoftware.

~Focus on actual testing

~product oriented activities

~Testng is the subset of quality control.

23: Diffrence between smoke and sanity ?

Ans : smoke testing: Smoke Testing is performed to ascertainthat the critical functionalities of the

program is working fine.

> The objective of this testing is to verify “ stability” of the system in order to with more rigorous testing

> Smoke testing is usually doucument or scripted is unscripted.

> Smoke testing is subset of regression testing.

Sanity testing: sanity testing is done to check the new functionality/ bugs have been fixed.

* The objectiveof the testing is to verify the “rationality” of the system in order proceed with more rigonostesting
* Sanity testing is usually performed by testers
* Sanity testing is usually not documented and is unscripted.
* Sanity testing is a subset of Acceptance testing
* Sanity Testing is like specialized health check up

24: Differnce between verification and validation.

Ans:

25: Explain type of performance testing.

Ans: 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?

Ans : **Error:** A discrepancy between a computed, observed, or measuredvalue or condition and the true, specified, or theoretically correct valueor condition. Thiscan be a misunderstanding of the internal state ofthe software, an oversight in terms of memory managementconfusion about the proper way to calculate a value, etc.

**Defect:** Commonly refers to several troubles with the softwareproducts, with its external behavior or with its internal features.

**Bug**: A fault in a program which causes the program to perform in anunintended or unanticipated manner. See: anomaly, defect, error,

exception, and fault. Bug is terminology of Tester.

**Failure:** The inability of a system or component to perform itsrequired functions within specified performance requirements. See:

bug, crash, exception, and fault.

27) Difference between priorty and severity.

Ans : Priorty:

|  |
| --- |
| Priority is a parameter to decide the order in which defects should be fixed. |
|  |

Priority means how fast defect has to be fixed.

|  |
| --- |
| Priority is related to scheduling to resolve the problem. |
|  |

Severity:

1) Severity is a parameter to denote the impact of a particular defect on the software.

2) Severity means how severe defect is affecting the functionality

1. Severity is related to the quality standard.

28) What is bug life cycle?

Ans: The duration or time span between the first time defect is found and the time that is closed successfully, rejected, postponed or deferredis called bug life cycle.

29) Explain the difference between functional testing and non functional testing.

Ans: Functioal testing:

1) It tests ‘What’ the product does. It checks the operations and actions of an Application.

2)It is carried out manually.Example: Black box testing method.

1. It tests as per the customer requenment.
2. Customer feedback helps in reducing the risk factors of the product

Non – Functiomal Testing :

1. It checks the behaviour of an Application.
2. It is more feasible to test using automated tools.  
   Example: Loadrunner.
3. It tests as per customer expectations.
4. Customer feedback is more valuable for non- functional testing as it helps to improve and lets the tester to know the expectation of the customer..