Module–2(Manual Testing)

• What is Exploratory Testing?

* Experience based techniques are non-structured and do not rely on specification documents, This may be the only type of technique used for low-risk systems in fact this is one of the factors leading to exploratory testing.

• 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 it’s presence.

• What is Boundary value testing?

* Boundary value analysis is a method which refines equivalence partitioning.

• What is Equivalence partitioning testing?

* It divides the input data of software into different equivalence data classes.

• What is Integration testing?

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

• What determines the level of risk?

• What is Alpha testing?

* Alpha Testing is definitely performed and carried out at the developing organization’s location with the involvement of developers.

• What is beta testing?

* Beta Testing is always performed at the time when software productand project are marketed.
* Beta Testing is always open to the market and public.
* It is only a kind of Black Box Testing.

• What is component testing?

* A unit is the smallest testable part of software.

• What is functional system testing?

* A requirement that specifies a function that a system or system component must perform.

• What is Non-Functional Testing?

* The attributes of a componentor or a system that do not relate to any functionality. e.g, usability, efficiency, portability.

• What is GUI Testing?

* Graphical User Interface testing is the process of testing the system’s GUI of system under the test. GUI testing involes checking the screens with controls like menus, icons, buttons etc.

• What is Adhoc testing?

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

• What is load testing?

• What is stress Testing?

• What is white box testing and list the types of white box testing?

* Testing based on analysis of the internal structure of component or system. White box is also known as glass box or open box-----

• What is black box testing? What are the different black box testing techniques?

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

There are 4 techniques of black box testing:

1. Equivalence partitioning
2. Boundary value analysis
3. Decision table
4. State transition testing

• Mention what are the categories of defects?

• Mention what big bang testing is?

* Big Bang Integration Testing is a software testing strategy where in all units are linked at once, resulting inn complete system.

• What is the purpose of exit criteria?

• When should "Regression Testing" be performed?

• 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 error fallacy
8. testing shows presence of defects:- Testing can showthatdefectsarepresent, butcannotprove that there are no defects. Testing reduces the probability od undicscovered defects remaining the software if no defects are found then it is not proof of correctness.
9. Exhaustive testing is imposibble:- testing everything including all combination of inputs and preconditions is not possible.
10. Early testing:- testing activities should start as early as possible in the software or SDLC, and should be focused on defined objectives.
11. Defect clustering:- a small number of modules contain most of the defects disccoverd during pre- release testing, or are responsible for the most operationnal failures.
12. Pesticide paradox:- if the same tests are repeated overlandover again Eventually the same set of test cases wull no longer find any new defects.
13. Testing is context dependent:- testing is basically context dependent. Testing is done differently in different contexts. Different kinds of sites are tested differently.
14. Absence of errors fallacy:- if system built is unusable and does not fulfill user’s needs and expectationns then finding and fixing defects dows not help.

• Difference between QA v/s QC v/s Tester

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| S.N | Quality Assurance | Quality Control | Testing |
| 1 | It is a subset of Software Test Life Cycle (STLC) | It is a subset of Quality Assurance. | It is a subset of Quality Control. |
| 2 | QA is preventive activities. | It is a corrective proccess. | It is a preventive process. |
| 3 | QA is a processs oriented activties. | QC is a corrective process. | It is preventive process. |

• Difference between Smoke and Sanity?

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| --- | --- |
| * Smoke Testing | * Sanity Testing |
| * This testing is performed by the developers or testers. | * Ssanity testing is usually performed by testers. |
| * Smoke testing is usually documented or scripted. | * Sanity testing is usually not documented and is unscripted. |
| * Smoke testing is a subset of Regression testing. | * Sanity testing is a subset of Acceptance testing. |
| * Smoke testing is like genral Health Check Up. | * Sanity Testing is like specialized health. |

• Difference between verification and Validation

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| Criteria | Verification | Validation |
| Definition | The process of evaluating work-products of a development phase to determine whether they meet the specified requirements fot that phase. | The process of evaluating software during or at the end of the development process to determine whether it satisfies specified buisness requirements. |
| Question | Are we building the product right? | Are we building the right product? |
| Evaluation Items | Plans, Requirement Specs, Code, Test Cases | The actual product/software |
| Activities | Reviews  Walkthroughs  Inspections | Testing |

• Explain types of Performance testing.

* Software performance testing is a means of quality assurance. It involes testing software applications to ensure they will perform well under their expected workload. The focus of Performance testing is checking a software programs.

• What is Error, Defect, Bug and failure?

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

• Difference between Priority and Severity

• What is Bug Life Cycle?

• Explain the difference between Functional testing and NonFunctional testing

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| Functional Testing | Non-Functional Testing |
| 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 |
| Functional testing describes what the product does | Non-functional testing describes how good the product works |
| Easy to do manual testing | Tough to do manual testing |
| Types of functional testing are   * Unit Testing * Smoke testing * Sanity testing * Black box testing * Integration testing * White box testing | Types of Non-functional testing are   * Performance testing * Load testing * Stress testing * Migration testing * Load testing * Volume testing |