• What is Exploratory Testing?

* Exploratory testing is a concurrent process where test design, execution and logging happen simultaneously, testing is often not recorded, makes use of experience, heuristics and test patterns.
* It is not random testing but it is adhoc testing with purpose of find bugs and is structured and rigorous.

• What is traceability matrix?

* To protect against changes you should be able to trace back from every system component to original requirement that caused its presence.
* Types of RTM:

1. Forward Traceability – mapping of req. to test cases
2. Backward Traceability- mapping of test cases to requirements
3. Bi-Directional Traceability – A good traceability matrix is the references from test cases to basis documentation and vice versa.

* Pros: => easy to identify the missing functionalities.

=>to make sure that all requirements included in test cases

=>If there is a change request for a requirement, then we can easily find out which test cases need to update.

=> To make obvious to the client that the software is being developed as per the requirements.

-> Cons: => Poor or unknown test coverage, more defects found in production.

=> Difficult project planning and tracking, misunderstandings between different teams over project dependencies, delays, etc.

• What is Boundary value testing?

* BVA is a methodology for designing test cases that concentrates software testing effort on cases near the limits of valid ranges.
* BVA is method which refines equivalence partitioning.
* Its generates test cases that highlight errors better than E.P.
* At those points when input values change from valid to invalid errors are most likely to occur.

• What is Equivalence partitioning testing?

* Aim is to treat group of input as equivalent and select one representative input to test them all.
* EP can be used for all levels of testing.
* EP always one positive scenario and two negative scenario.

• What is Integration testing?

* Testing performed to expose defects 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.
* Two level of Integration testing :

1. Component integration testing.
2. System integration testing.

* CIT: testing performed to expose defects in the interfaces and interaction between integrated components.
* SIT: it tests the interactions between different systems and may be done after system testing.

• What determines the level of risk?

* It’s depends on below evaluated points:

1. Business levels.
2. Technological level
3. Project level
4. Testing level – its depend on the where to start testing and where more testing is needed
5. Financial cost of software
6. Potential loss of life like safety systems
7. Potential loss of face(improper implementations)
8. Late delivery to the market

• What is Alpha testing?

* It is always performed by the developers at the software development site.
* It is always performed in virtual environment.
* It is not open to the market and public.
* It is also performed by the independent testing team.
* It is conduct for software application and project.
* It is always performed within the organization.
* It’s come under the category of both white box testing and black box testing.

• What is beta testing?

* It is always performed by the customers at their own site.
* It is not performed by independent testing team.
* It is performed in real time environment.
* It is also the form of acceptance testing.
* It is only a kind of black box testing.
* It is usually conducted for software product.
* It is always performed outside the organization.

• What is component testing?

* The testing of individual software components.
* It is the first level of testing and is performed prior to integration testing.
* It’s also known as unit testing, module testing or program testing.
* Unit testing is performed by using the white box testing method.
* Unit testing frameworks, drivers, stubs and fake objects are used to assist in unit testing.
* Unit testing are typically written and run by software developers to ensure that code meets its design and behaves as intended with debugging tool.
* Unit tests find problems early in the development cycle.

What is functional system testing?

* Testing based on an analysis of the specification of the functionality of a component or system
* Functional testing verifies that each function of the software application operates in conformance with requirement specifications.
* This testing mainly involves black box testing and it not concerned about the source code of the application.
* Type of functional testing:

1. Unit testing
2. Smoke testing
3. Sanity testing
4. Regression testing
5. Integration testing
6. Black box testing
7. White box testing
8. User acceptance testing

• What is Non-Functional Testing?

* Testing the performance, reliability, scalability and other non-functional aspects of the software system.
* It performed after functional testing
* It’s describe how good the product works.
* Using tools will be effective for this testing.
* Type of non- functional testing:

1. Performance testing
2. Load testing
3. Stress testing
4. Security testing
5. Scalability testing
6. Migration testing
7. Stress testing
8. Volume testing
9. Compatibility testing

• What is GUI Testing?

* GUI testing is the process of testing the system’s GUI of the system under test. In this we involves checking the screens with the controls like menus, buttons, icons, and all types of bars – toolbar, menu bar, dialog boxes and windows etc.
* Common aspects verified in GUI testing:

1. Layout
2. Style and aesthetics
3. Responsiveness
4. Behaviour
5. Error messages

* Type of GUI testing

1. Manual testing
2. Automated Testing
3. Cross-platform testing

• What is Adhoc testing?

* It is informal testing type with an aim to break the system.
* It does not follow any test design techniques to create test cases.
* In fact is does not create test cases altogether.
* This testing is primarily performed if the knowledge of testers in the system under test is very high.
* Main aim of this testing is to find defects by random checking.
* Ad-hoc testing can be achieved with the testing technique called error guessing.
* Types of ad-hoc testing

1. Buddy testing
2. Pair testing
3. Monkey testing

• What is load testing?

* Load testing is to test the system behaviour under normal workload conditions, and it is just testing or simulating with the actual workload.
* Load testing does not break the system
* Load testing identifies the bottlenecks breaking the system under various workload and checks how the system reacts when the load is gradually increased.
* Load testing gives confidence in the system & its reliability and performance.

• What is stress Testing?

* Stress testing is to test the system behaviour under extreme conditions and is carried out till the system failure.
* In the stress testing determines the point of the system to revel the maximum point after which it breaks.
* Stress testing tries to break the system by testing with overwhelming data or resources.
* Stress testing is done in order to check when the application fails by reducing the resources such as RAM, HDD etc. and also the keeping the number of users constant.

• 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.
* Structure-based testing technique is also known as white-box testing or glass box testing technique because here the testers require knowledge of how the software is implemented, how it works.
* White box testing done by the developer ends.

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

• Mention what are the categories of defects?

• Mention what big-bang testing is?

• What is the purpose of exit criteria?

• When should "Regression Testing" be performed?

• What is 7 key principles? Explain in detail?

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

• Difference between Smoke and Sanity?

• Difference between verification and Validation

• Explain types of Performance testing.

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

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

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

• What are the different Methodologies in Agile Development Model?