* What is Exploratory Testing ?

Exploratory testing is a is a con current process test design, execution and logging happen simultaneously .

* 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 its presence.

* What is Boundary Value Testing ?

Boundary value Analysis is a methodology for designating test cases that concentrates software testing effort on cases near the limits of valid ranges process of testing extreme ends or between partition of the input values. So these extreme ends like star- end, lower -upper, maximum-minimum just inside just outside value are testing is called “boundary value”.

* What is Equivalence partitioning testing ?

Equivalence partitioning is the process of defining the optimum number of tests by ep can be used for all levels of testing. In ep we must identify valid equivalence partitioning and invalid the valid partition is bounded by the values 1and 100.

* What is Integration Testing ?

Tesing performed to expose defects in the interfaces and in the interractions between intergrated component or system.

* What determines the level of risk ?

1. Project Risks
2. Product Risks .

* What is Alpha Tesing ?

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

* What is Beta Tesing ?

Beta tesing is always performed at the time when software produced project are marketed.

* What is Component Tesing ?

A minimal software item that can be tested in isolation. It means “a unit is the smallest testable part of software”.

* What is Functional system Testing ?
* Tesing based on an analysis of the specification of the functionality of a component or system.
* What is Non- Functional Testing ?

Testing the attributes of a component system that do not relate to functionality.

* What is GUI Testing ?

GRAPHICAL USER INTERFACE (GUI) Testing is the process of testing the system’s GUI of the system under test.

* What is ADHOC Testing ?

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

* What is Load testing ?

It’s a performance testing to check system behavior under load. Testing an application under heavy loads, such as testing of a web site under range of loads to determine at what point the system’s response time degrades or fails.

* What is stress testing ?

System is stressed beyond its specification to check how and when it fails. Performed under heavy load like putting larger number beyond storage capacity,complex database queries,continuous input to system or database load.

* What is white box testing and list the type of white box testing ?

Testing based on an analysis of the internal structure of the componentor system.

Type of white box testing :-

* Statement coverage
* Decision coverage
* Condition coverage
* 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.
* Technique of black box testing
* Equivalence partitioning
* Boundary value analysis
* Decision tables
* State transition testing
* Mention what are the categories of defects ?

1. Data Quality / database defects
2. Critical functionality defects
3. Functionality defects
4. Security defects
5. User interface defects

* What is big bang testing ?

bang integration testing all components or modules is integrated simultaneously, after which everything is finished as a whole.

* What is the purpose of exit criteria ?

The purpose of exit criteria is to define when we stop testing either at the:

End of all testing- I.e. product go live

End of phase of testing (e.g. hand over from system test to UAT)

* When should “Regression testing “be performed?

meats , error , corrections, optimization Testing of a previously tested program following modification to ensure that defects have no been introduced or uncovered in unchanged areas of the software ,as a result of the change made. It is performed when the software or its environments is changed.

Regression testing techniques:-

Software maintenance is an activity which includes enhance ion and deletion of existing features.

Therefore, regression testing becomes necessary.

Regression testing can be carried out following techniques:-

Reset all:-this is one of the methods for regression testing in which all the tests in the existing test buckets or suite should be re-executed.

Regression test selection:-instead of re-executing the entire test suit,it is better to select part of test suit to be run test cases selected can be categorized 1)reusable test case 2)obsolete.

Prioritization of test cases:-prioritization the test cases depending on business impact,critical and frequently used functionalities.

* 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 errors fallacy.
8. Testing shows presence of defects:-

Testing reduces the probability of undiscovered defects remaining in the software but, even if no defects are found , its is not a proof of correctness.

1. Exhaustive testing is impossible:-

Testing everything including all combinations of inputs and precondition is not possible.

1. Early testing :-

Testing activities should start as early as possible in the development life cycle.

1. Defect clustering:-

Defects are not evenly spread in a system they are ‘clustered’.

1. Pesticides paradox:-

If the same tests are repeated overland over again eventually the same set of test case will no longer find any new defects.

1. Testing is context dependent :-

* Testing is basically context dependent.
* Testing is done differently in different contexts.

1. 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.
* Difference between QA v/s QC v/s tester ?

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| --- | --- | --- | --- |
| Sr No | Quality Assurance | Quality control | Testing |
| 1 | Activities which ensure the implementation of processes  Procedures and standards in context to verification of developed software and intended requirements. | Activities which ensure the verification of developed software with respect to documented. | Activities which ensure the identification of bug/error/defects in the software. |
| 2 | Process oriented activities. | Product oriented activities. | Product oriented activities. |
| 3 | Preventive activities. | It is a corrective process. | It is a preventive process. |
| 4 | It is a subset of software test life cycle(STLC). | QC can be considered as the subset of Quality Assurance. | * Testing is the subset of Quality control. |

* Difference between smoke and sanity ?

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| Sr. No. | Smoke testing | Sanity testing |
| 1 | Smoke testing is performed to ascertain that the critical functionalities of the program is working fine. | Sanity testing is done to check the new functionality/ bugs have been fixed. |
| 2 | The objective of this testing is to verify “stability”of the system in order to with more rigorous testing. | the objective of this testing is to verify the “rationality” of the system in order proceed to proceed with more rigorous testing. |
| 3 | this testing is performed by the developers or testers. | this sanity testing is usually performed by testers. |
| 4 | Smoke testing is usually documented or scripted. | Sanity testing is usually not documented and is unscripted. |
| 5 | * smoke testing is like general health check up. | Sanity testing is like specialized health. |

* Difference between verification and validation ?

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| Sr no | Verification | | Validation |
| 1 | The process of evaluating work-products of a development phase to determine whether they meet the specified requirements for that phase. | | the process of evaluating software during or at the end of the development process to determine whether it satisfies specified business requirements. |
| 2 | In other words, to ensure that work products meet their specified requirements. | | In other words, to demonstrate that the product fulfills its intended use when placed in its intended environment. |
| 3 | Plans,requirement specs, design specs, code, test cases. | | The actual product/ software. |
| 4 | testing |

* Difference between functional testing and Non-functional testing?

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| Sr no. | Functional testing | Non -functional testing |
| 1 | Functional testing is performed using the functional specification provided by the client and verifies the system against the functional requirements. | Non-functional testing checks the performance,reliability,scalability,and other non-functional aspects of the software system. |
| 2 | Business requirements are the inputs to functional testing. | Performance parameters like speed,scalability are inputs to non -functional testing. |
| 3 | Functional testing describes what the product does | Non-functional testing describes how good the product works. |
| 4 | Easy to do manual testing | Tough to do manual testing |
| 5 | Type of functional testing are  Unit testing  Smoke testing  Sanity testing  Integration testing  White box testing  Black box testing  User acceptance testing  Regression testing | Types of non- functional testing are  Performance testing  Load testing  Volume testing  Stress testing  Security testing  Installation testing  Compatibility testing |

* What is the difference between the STLC(software testing life cycle ) and SDLC (software development life cycle)?

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| Sr. No. | SOFTWARE DEVELOPMENT LIFE CYCLE | SOFTWARE TESTING LIFE CYLCE |
| 1. | SDLC is mainly related to software development. | STLC is mainly related to software testing. |
| 2. | SDLC involves total six phases or steps. | STLC involves only five phases or steps. |
| 3. | It helps in developing good quality software. | It helps in making the software defects free. |
| 4. | Goal of SDLC is complete successful development of software. | Goal of STLC is to complete successful testing of software. |

* What is error , defect, bug and failure?

“a mistake in coding is called error, error found by tester is called defect, defect accepted by development team then it is called bug, built does not meet the requirements then it is failure”.

* Difference between priority and severity?

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| Sr.no. | priority | severity |
| 1. | Priority is a parameter to decide the order in which defects should be fixed. | Severity is a parameter to denote the impact of a particular defect on the software. |
| 2. | Priority means how fast the defects has to be fixed. | Severity means severe the defect is affecting the functionality. |
| 3. | Priority is divided into 3 categories:   * Low * Medium * High | Severity is divide into 4 categories :   * Critical * Major * Medium * Low |

* Explain types of performance testing ?

1. stress testing
2. Load testing
3. Spike testing
4. Volume testing
5. Endurance testing
6. Scalability testing

* What is bug life cycle ?

“A computer bug is an error , flow , mistake , failure ,or fault in a computer program that prevents it from working correctly or produce an incorrect result. Bugs arise from mistakes and errors, made by people, in either a program ‘source code or its design”.

* What is priority ?

Priority is relative and business-focused.priority defines the order in which we should resolve a defect.

* What is severity ?

Severity is absolute and customer -focused. It is the extent to which the defect can affect the software .

* Bug categories are ?

1. Data quality /database defects :-

Deals with improper handling of data in the database.

1. Critical functionality defects :-

The occurrence of these bugs hampers the critical functionality of the application.

1. Functionality defects:-

These defects affect the functionality of the application.

1. Security defects:-

Application security defects generally involve improper handling of data sent from the user to the application.

1. User interfaces defects:-

As the name suggests, the bugs deal with problem related to UI are usually considered less severe.

* What are the difference methodologies in agile development model ?

Scrum :- scrum is an agaile development method concentrates particularly in how to manage tasks within a team based development environment.

Basically , scrum is derived from activity that occurs during rug by match.

Kanban:- kanban is a very popular framework for development in the agile software development methodology.

It mainly uses physical and digital boards to allow the team members to visualizing the current state of the project they are working on.

* When to used usability testing?

1. All fields on a page (for example,,test box,radio options, drop-down lists) should be aligned properly.
2. The user should not be able to type in drop-down select lists.
3. The user should be able to select to only one radio option and any combination for check boxes.

* What is the procedure for GUI testing ?

Things to consider for model based testing :-

1. Create the model.
2. Determine the information as inputs in the system.
3. Verifying the expected output.
4. Execute model.
5. Take further action on the model.

* What are the difference between test scenarios, test case, test script ?

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| Sr. No. | Test scenarios | Test case | Test script |
| 1. | Any functionality that can be tested. | a set of actions executed to verify particular features or functionality. | A set of instruction to test an app automatically. |
| 2. | Helps test the end-to-end functionality in an agile way. | Helps in exhaustive testing of an app. | Helps to test specific things repeatedly. |
| 3. | Is more focused on what to test. | Is focused on what to test and how to test. | Is focused on the expected result. |
| 4. | Includes an end-to-end functionality to be tested. | Includes test steps,data, expected results for testing. | Includes different commands to develop a  Script. |

* Explain the difference between Authorization and Authentication in web testing.what are the common problem faced in web testing ?

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| Sr. No. | Authentication | Authorization |
| 1. | It determines whether users are who they are claiming to be. | It determines the access that should be given or denied to an employee/user. |
| 2. | Authentication is visible to the user. | Authorization is not visible to the user. |
| 3. | This process is changeable by the user. | It is not changeable by the user. |
| 4. | It requires the login details of the user. | It needs the user’s access privilege and its security levels. |

* Explain what test plan is ?what is the information that should be covered?

1)Test planning :-

* a document describing the scope , approach, resource and schedule of intended test activities.
* Determining the scope and risks, and identifying the objectives of testing.
* Acquisition,supply,development,operation and maintenance.

2)test planning strategy:-

* all projects require set of plans and strategies which define how the testing will be conducted.

1. Test planning factor :-

* Factor which affect test planning the organization's test policy.
* Test plan are continuously refined .
* Scope of the testing being performed testing objectives .

1. Test planning activity :-

* Integrating and coordinating the testing activities into the software life cycle .
* Selecting metrics for monitoring and controlling test preparation and execution ,defect resolution and risk issues.

* **Advantage of Bugzilla ?**

**Bugzilla is an open-source bug tracking system that several advantages for software development and quality assurance processes. Here are some key advantages of using bugzilla.**

* **Customization and flexibility**
* **Web -based interfaces**
* **Comprehensive search and Reporting**
* **Email notification and alerts**