**Q-1. What is software testing?**

**Ans.**Testing is the process of evaluating a system or its component with the intent to find that whether it satisfies the specified requirements or not.

Or

testing is executing a system in order to identify any gaps, errors or

missing requirements in contrary to the actual desire or requirements.

Or

Software Testing is a process used to identify the correctness, completeness, and quality of developed computer software.

**Q-2. What is Exploratory Testing?**

**Ans.** 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.

**Q-3. What is traceability matrix?**

**Ans.** Traceability Matrix is a table which is used to trace the requirements during the Software development life Cycle. It can be used for forward tracing or backward tracing.

To protect against changes, you should be able to trace back from every system

componentto the original requirement that caused its presence.

**Q-4. What is boundary value testing?**

**Ans.**Software testing technique in which tests are designed to include representatives of boundary values.

Or

‘Boundary value analysis’ testing technique is used to identify errors at boundaries rather than finding those exist in centre of input domain.

**Q-5.What is equivalence partitioning testing?**

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

**Q-6 What is integration testing?**

**Ans.**Individual modules are grouped together and tested by the developers.The purpose is to determine that modules are working as expected once they are integrated.

Or

Testing performed to expose defects in the interfaces and in the interactions between integrated components or systems.

**Q-7. What determines the level of risk?**

**Ans.**There are two types of risk:

1. Project risk:
2. Product risk:

**Q-8. what is alpha testing?**

**Ans.** Unit testing, integration testing and system testing when combined are known as alpha

testing. Alpha Testing is always performed at the time of Acceptance Testing when developers test the product and project to check whether it meets the user requirements or not.

**Q-9. What is beta testing?**

**Ans.** Beta Testingis performed and carried out by users or you can say people at their own locations and site using customer data and only a kind of Black Box Testing.

* Beta Testing is always performed at the time when software product and project are

marketed.

* Beta testing can be considered “**pre-release**” testing and “**field testing**”.

**Q-10. What is component testing?**

Ans. The testing of individual software components.

or

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

**Q-11. What is functional system testing?**

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

A Requirement may exist as a text document and/or a model.

There is two types of techniques

Requirement Based Functional Testing

Process Based Testing

**Q-12. What is non-functional testing?**

**Ans.**Testing the attributes of a component or system that do notrelate to functionality

e.g. reliability

efficiency

usability

interoperability

maintainability

portability

**Q-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.

**Q-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 is to find defects by random checking.

Adhoc testing can be achieved with the testing technique called Error Guessing.

* The Error guessing is a technique where the experienced and good testers are

encouraged to think of situations in which the software may not be able to cope.

**Q-15. What is white box testing and list the types of white box testing?**

**Ans.** Testing based on an analysis of the internal structure of the

component or system is called white box type of testing

* It is also known as glass box type of testing
* There are 3 different types of coverage:

1. Statement coverage
2. Decision coverage
3. Condition coverage

**Q-16. What is black box testing? What are the different black box testing techniques?**

**Ans.** Testing, either functional or non-functionalwithout reference to the

internal structure of the component or system.

* Specification-based testing technique is also known as ‘black-box’ or input/output driven

testing techniques because they view the software as a black-box with inputs and outputs.

There are four specification-based or black-box technique:

Equivalence partitioning

Boundary value analysis

Decision tables

State transition testing

Use-case Testing

Other Black Box Testing

Syntax or Pattern Testing

**Q-17. mention what are the categories of defects?**

**Ans.**

1. **Data Quality/Database Defects:** Deals with improper handling of data in the database.
2. **Critical Functionality Defects:** The occurrence of these bugs hampers the crucial functionality of the application.
3. **Functionality Defects:** These defects affect the functionality of the application.
4. **Security Defects:** Application security defects generally involve improper handling of data sent from the user to the application
5. **User Interface Defects:** As the name suggests, the bugs deal with problems related to UI are usually considered less severe.

**Q-18. Mention what big bang testing is?**

**Ans.** In Big Bang integration testing all components or modules is integrated simultaneously,

after which everything is tested as a whole.

Big Bang testing has the advantage that everything is finished before integration testing

starts.

**Q-19. what is the purpose of exit criteria?**

**Ans**. Successful Testing of Integrated Application.

Executed Test Cases are documented

All High prioritized bugs fixed and closed

Technical documents to be submitted followed by release Notes.

**Limitations**

Any condition not specified in integration tests, apart from the

confirmation of the execution of the design items is usually not tested.

**Q-20. When should "Regression Testing" be performed?**

**Ans.** This testing is done to make sure that new code changes should not have side effects on the existing functionalities. It ensures that old code still works once the new code changes are done.

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

**Ans.**

1. Testing shows presence of Defects: testing can show that there are defects but we can not say that there are no defect
2. inputs and precondition is not possible

* So, instead of doing the exhaustive testing we can use risks and

priorities to focus testing efforts.

Exhaustive testing of complex software application

Required anourmussourses

It is too expensive

Takes too long

1. Early Testing: testing should start as early as possible in software or system development life cycle and should be focused on defined objective
2. Defect Clustering :A small number of modules contain most of the defects

discovered during pre-release testing, or are responsible for themost operational functions.

1. Pesticide paradox:-If the same tests are repeated over and over again, eventually the sameset of test cases will no longer find any new defects.

* To overcome this “pesticide paradox”, the test cases need to be regularly reviewed and revised, and new and different tests needto be written to exercise different parts of the software or systemto potentially find more defects.

1. Testing is context dependent:- testing is done differently in different condition

* Different types of site are tested differently

1. Absence of error 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.

**Q-22. Difference between QA v/s QC v/s 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 STLC

**QC:-**

* 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
* It is corrective process
* QC can be considered as the subset of QA

**TESTER:-**

* Activities which ensurethe identification ofbugs/error/defects in the software.
* Focus on actual testing
* Product oriented activities
* Preventive method
* Testing is the subset of QA

**Q-23. Difference between Smoke and Sanity?**

**Ans.** smoke testing:

* Smoke Testing is performed after software build to ascertain that the critical functionalities of the program is working fine.
* It is executed "before" any detailed functional or regression tests are executed on the software build
* Perform by tester and developer
* It is scripted or well documented
* It is a subset of regression testing

Sanity testing:

* After receiving a software build, with minor changes in code, or functionality, Sanity testing is performed to ascertain that the bugs have been fixed and no further issues are introduced due to these changes.
* The goal is to determine that the proposed functionality works roughly as expected.
* Perform by tester
* Not documented and unscripted
* It is a subset of acceptance testing

**Q-24. Difference between verification and Validation**

**Ans.**

Validation:

* The process of evaluating software during or at the end of the development process to determine whether it satisfies specified business requirements.
* To ensure that the product actually meets the user’s needs, and that the specifications were correct in the first place.
* In other words, to demonstrate that the product fulfills its intended use when placed in its intended environment.
* The actual product/software.
* testing

Verification:

* The process of evaluating work-products (not the actual final product) of a development phase to determine whether they meet the specified requirements for that phase.
* To ensure that the product is being built according to the requirements and design specifications
* In other words, to ensure that work products meet their specified requirements.
* Plans, Requirement Specs, Design Specs, Code, Test Cases
* Review, walkthrough, inspection

**Q-25. Explain types of Performance testing.**

**Ans**. performance testing involves testing software applications to ensure they will perform

well under their expected workload.

Load testing

Stress testing

Endurance testing

Spike testing

Volume testing

Scalability testing

**Q-26. What is Error, Defect, Bug and failure?**

**Ans.Error:** A discrepancy between a computed, observed, or measured

value or condition and the true, specified, or theoretically correct value

or condition.

**Defect:** Commonly refers to several troubles with the software

products, with its external behaviour or with its internal features.

**Bug**: A fault in a program which causes the program to perform in an

unintended or unanticipated manner. See: anomaly, defect, error,

exception, and fault.

**Failure:** The inability of a system or component to perform its

required functions within specified performance requirements. See:

bug, crash, exception, and fault.

**Q-27. Difference between Priority and Severity**

**Ans.** Defect severity:-

* Severity is absolute and customer focused
* It is extend to which the defect can affect the software.
* In other word it defines the impact that given defect has on the system.

Defect priority

* Priority is relative and business focused
* Priority defines the order in which we should resolve a defect should we fix it now or wait for it
* This priority status is set by yhe tester to the developer mentioning the time to frame it.

**Q-28. What is Bug Life Cycle**?

**Ans.**The duration of time span between the first time defect is found and the time that it is closed successfully, rejected, postponed or deferred is called as bug life cycle.

**Q-28. Explain the difference between Functional testing and Non-Functional testing**

**Ans.** Functional testing:

* Testing based on an analysis of the specification of the functionality of a component or system.
* E.g. Requirements specification, use cases, functional specification or maybe undocumented.
* involves black box testing
* Functional testing is executed first
* Easy to do manual testing
* Functional testing describes what the product does
* Types of Functional testing:

∙ Unit Testing

∙ Smoke Testing

∙ Sanity Testing

∙ Integration Testing

∙ White box testing

∙ Black Box testing

∙ User Acceptance testing

∙ Regression Testing

Non functional testing:

* Testing the attributes of a component or system that do not relate to functionality
* e.g. reliability, efficiency, usability, interoperability, maintainability and portability
* Non functional testing should be performed after functional testing
* Tough to do manual testing
* Nonfunctional testing describes how good the product works
* Types of Nonfunctional testing:

∙ Performance Testing

∙ Load Testing

∙ Volume Testing

∙ Stress Testing

∙ Security Testing

∙ Installation Testing

∙ Penetration Testing

∙ Compatibility Testing

∙ Migration Testing

**Q-29 What is the difference between the STLC (Software Testing Life Cycle) and SDLC (Software Development Life Cycle)?**

**Ans.**

STLC:

* It is a sequence of activities performed during software testing process.

1. Requirement Analysis
2. test Planning
3. Test case development
4. Test Environment setup
5. Test Execution
6. Test Cycle closure

* Focused only on testing of software
* In STLC process less number of members are needed
* Goal:it is to complete successful testing of software
* Helps to make the software defect free

SDLC:

* Sequence of different activities performed during software development process

1. Requirement gathering
2. Analysis
3. Design
4. Implementation
5. Testing
6. Maintanence

* Beside development testing is also included
* More number of members are required for whole process
* It is to complete successful development of software
* Helping the good quality of software

**Q-30. What is the difference between test scenarios, test cases, and test script?**

**Ans.**

Test scenarios

* A Scenario is any functionality that can be tested. It is also called test Condition, or test possibility.
* Test Scenario is ‘What to be tested’
* Test scenario is nothing but test procedure.
* The scenarios are derived from use cases.
* Test Scenario represents a series of actions that are associated together.

Test cases:

* Test cases involve the set of steps, conditions and inputs which

can be used while performing the testing tasks.

* Test Case is ‘How to be tested’
* Test case consist of set of input values, execution precondition, expected Results and executed post-condition developed to cover certain test Condition.
* Test cases are derived from test scenario. Test Case represents a single action by the user

Test script:

* A set of sequential instruction that detail how to execute a core

business function

* One script is written to explain how to simulate each business scenario
* Written to a level of detail for which someone else (other than thescript writer) would be able to easily execute
* Identifies the test condition that is being satisfied for each step, if applicable

**Q-31 Explain what Test Plan is? What is the information that should be covered.**

**Ans.** Test Planning in STLC is a phase in which a Senior QA manager determines

the test plan strategy along with efforts and cost estimates for the project.

Activities in Requirement Phase Testing

* Preparation of test plan/strategy document for various types of testing
* Test tool selection
* Test effort estimation
* Resource planning and determining roles and responsibilities.
* Training requirement
* Deliverables of Requirement Phase Testing
* Test plan /strategy document.
* Effort estimation document.

**Q-32. What is priority?**

**Ans.**

Priority is Relative and Business-Focused. Priority defines the order in

which we should resolve a defect

**Q-33. what is severity?**

**Ans**.

Severity is absolute and Customer-Focused. It is the extent to which the defect can affect the software. In other words it defines the impact that a given defect has on the system.

**Q-34. Bug categories are…?**

**Ans**. Bug Category: Security, Database, Functionality (Critical/General), UI

**Q-35. Advantage of Bugzila ?**

**Ans.**

* Advanced search capabilities
* E-mail Notifications
* Modify/file Bugs by e-mail
* Time tracking
* Strong security
* Customization
* Localization

**Q-36. What are the different Methodologies in Agile Development Model?**

**Ans.** **Scrum:** SCRUM is an agile development method which concentrates particularly on how to

manage tasks within a team based development environment

scrum master

product owner

scrum team

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

* It provides a transparent way of visualizing the tasks and work capacity of a team.

**Q-37 Explain the difference between Authorization and Authentication in Web testing. What are the common problems faced in Web testing?**

**Ans**. Authorization:

* A person’s or user’s authorities are checked for accessing the resourses
* While in this process user are validated
* This process is done after authentication process
* It needs the user’s privilege or security levels

Authentication:

* Identity of user’s are checked for providing the access to the system
* Users and persons are verified
* It is done before authorization process
* Needs usually user’s login details

The common problem faced in web testing

* Integration
* Interoperability
* Security
* Performance
* Usability

**Q-37. create HLR and test case of art of testing**

**Ans.**

HLR

<https://github.com/jensi-07/28julySTjensi/blob/main/artof%20testing%20HLR.xlsx>

TEST CASE

<https://github.com/jensi-07/28julySTjensi/blob/main/artof%20testing%20test%20case.xlsx>

**Q-38. create HLR and test case of facebook**

**Ans.**

HLR

<https://github.com/jensi-07/28julySTjensi/blob/main/facebook%20hlr-jensi.xlsx>

TEST CASE

<https://github.com/jensi-07/28julySTjensi/blob/main/facebook-test%20case.xlsx>

**Q-39. create HLR and test case of instagram**

**Ans.**

HLR

<https://github.com/jensi-07/28julySTjensi/blob/main/instagram%20HLR.xlsx>

TEST CASE

<https://github.com/jensi-07/28julySTjensi/blob/main/instagram-testcase.xlsx>

**Q-40. create HLR and testcase of whatsapp**

**Ans.**

HLR

<https://github.com/jensi-07/28julySTjensi/blob/main/whatsapp-HLR.xlsx>

TEST CASE

<https://github.com/jensi-07/28julySTjensi/blob/main/whatsapp-testcase.xlsx>