1. **What is Exploratory Testing?**

**Ans:** exploratory testing is a concurrent process where test design, execution and logging happen simultaneously.

1. **What is traceability matrix?**

**Ans:** A document that tracks the relationship between the requirement and testcase.

1. **What is Boundary value testing?**

**Ans**: BVA is a software testing technique where test cases are designed to include values that represent the boundaries of input parameters, such as minimum, maximum, and edge values.

1. **What is Equivalence partitioning testing?**

**Ans**: Aim is to treat groups of inputs as equivalent and to select one representative input to test them all.

1. **What is Integration testing?**

**Ans:** integration testing is process of joining different units of software are tested as a combine entity.

1. **What determines the level of risk?**

**Ans:** mainly two types of risk : product risk and project risk.

1. **What is Alpha testing?**

**Ans:** it is performed by the developers at the software development site

1. **What is beta testing?**

**Ans:** it is always performed by the customers at their own site.

1. **What is component testing?**

**Ans**: A unit is smallest testable part of software.

1. **What is functional system testing?**

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

1. **What is Non-Functional Testing?**

**Ans:** testing the attributes of a component or system that do not relate to functionality.

1. **What is GUI Testing?**

**Ans:** Graphical user interface (GUI) testing is the process of testing it buttons, icons, and all types of bars like tool bar, menu bar dialog box, and windows etc.

1. **What is Ad hoc testing?**

**Ans:** Ad hoc testing is an informal testing type with an aim to break the system.

1. **What is load testing?**

**Ans:** It’s a performance testing to check system behaviour under load.

1. **What is stress Testing?**

**Ans:** determines the strength of software by testing beyond the limits of normal operation.

1. **What is white box testing and list the types of white box testing?**

**Ans**: testing based on the analysis of the internal structure of the system

**Types of Whitebox testing:**

1.statement coverage

2. decision coverage

3. condition coverage

**17. What is black box testing? What are the different black box testing techniques?**

**Ans:** Black boxtesting means without reference to the internal structure of system

**Types of black box testing:**

1.Equivalence partitioning

2.Boundary value analysis

3.Decision tables

4.state transition testing

**18. Mention what are the categories of defects?**

**Ans:** 1. Database defect

2.Critical functionality defects

3.Functionality defect

4. security defect

5. user interface defect

**19. Mention what big bang testing is?**

**Ans:** a type of integration testing that combines all the modules or components of a system into a single unit and tests them as a whole.

**20. What is the purpose of exit criteria?**

**Ans:**  Software testing teams will use exit criteria to determine if a test plan or project can exit to the next stage or be considered complete.

**21. When should "Regression Testing" be performed?**

**Ans**: whenever there are changes to the software codebase, including new features, bug fixes, code refactoring, performance improvements, or environment changes.

**22**. **What is 7 key principles? Explain in detail?**

**Ans**: 1. Testing shows presence of defect: - Testing shows that defects are present but cannot prove that there is no defect.

2.Exhaustive testing is impossible: - testing everything including all combinations of inputs and preconditions is not possible.

3. Early testing: - The practice of starting testing activities as soon as possible in the software development lifecycle (SDLC)

4.Defect clustering: - A non- uniform distribution of the defect throughout the application.

5.The pesticides paradox: - When the same tests are repeatedly run against software, but new bugs are not found

6. Testing is context dependent: - The testing depends on the project’s description.

7. Absence of error fallacy: - when any functionality is not working properly and does not match the customers satisfaction and needs then there is no meaning of the building system.

**23. Difference between QA v/s QC v/s Tester**

|  |  |  |
| --- | --- | --- |
| QA | QC | Tester |
| QA means quality assurance | QC means quality control | Tester means tester |
| QA is a subset of (STLC) | QC is subset of the QA | Tester is the subset of Qc |
| Preventive activities | Corrective process | Preventive process |
| Process oriented activities | Product oriented activities | Product oriented activities |
|  |  |  |

**24. Difference between Smoke and Sanity?**

|  |  |
| --- | --- |
| smoke | sanity |
| Smoke testing is performed after software build to ascertain that the critical functionality of the program is worked fine | Sanity means with minor changes in code or functionality and fixing of the bugs and no further issues are introduced |
| Smoke is used to verify stability | Sanity is used to verify rationality |
| Smoke is done by developers and tester | Sanity is done by only tester |
| Smoke is unscripted | Sanity is scripted |
| Ex: - general health check up | Ex: - like specialized check up |

**25.Difference between verification and Validation**

|  |  |
| --- | --- |
| verification | Validation |
| Building the product right | Building the right product |
| Early in development | End of development |
| Static analysis, code reviews | Dynamic testing, UAT |
| Identify and fix errors early | Ensure the product meets user needs |
| QA personnel | Software testers |

26. Explain types of Performance testing.

Ans: - **Types of performance testing**

Load testing

Stress testing

Endurance testing

Spike testing

Volume testing

Scalability testing

* **Explanation of types of performance testing**

Load testing: - it’s a performance testing to check system behaviour under the load.

Stress testing: - determines the strength of software by testing beyond the limits of normal operation.

**27.What is Error, Defect, Bug and failure?**

**Ans: Error: -** A mistake in coding is called error.

**Defect: -** error found by the tester it is known as the defect.

**Bug: -** defect accepted by development team then it is called bug.

**Failure: -** build does not meet the requirements then it is failure.

**28.Difference between Priority and Severity**

**Ans: -**

|  |  |
| --- | --- |
| Severity | Priority |
| Severity means the seriousness of the defect in the product functionality | How soon the bugs should be fixed |
| Severity means the customer focused | Priority means the business focused |
| Category decided by testers | Category decided by developers or product owners. |
| Deals with the technical aspects of the application. | Deals with the timeframe or order to fix the defects |
|  |  |

**29.What is Bug Life Cycle?**

**Ans: -** a cycle of defects in which it goes through different states throughout its life.

**30. Explain the difference between Functional testing and Non-functional testing**

**Ans: -**

|  |  |
| --- | --- |
| Functional | Non- functional |
| Testing based on analysis of the specification of the functionality of a computer or system | Testing the attributes of a company or system that do not relate to functionality |
| Functional testing executes first | Nonfunctional testing performed after the functional testing |
| Easy to do manual testing | Though to do manual testing |
| Automation tool can be used for manual testing | Using tool for testing is effective for testing |
| Types: - unit testing, smoke testing, sanity testing | Types: - load testing, stress testing, performance testing |

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

**Ans: -**

|  |  |
| --- | --- |
| STLC | SDLC |
| |  |  | | --- | --- | | SDLC is mainly related to software development. |  | | STLC is mainly related to software testing. |
| |  |  | | --- | --- | | SDLC involves total six phases or steps. |  | | |  | | --- | | STLC involves only five phases or steps. | |  | |
| |  |  | | --- | --- | | In SDLC, more number of members (developers) are required for the whole process. |  | | |  | | --- | | In STLC, less number of members (testers) are needed. | |  | |
| |  |  | | --- | --- | | SDLC phases are completed before the STLC phases. |  | | |  | | --- | | STLC phases are performed after SDLC phases. | |  | |
| |  |  | | --- | --- | | It helps in developing good quality software. |  | | |  | | --- | | It helps in making the software defects free. | |  | |

**32. What is the difference between test scenarios, test cases, and test script?**

**Ans: -**

|  |  |  |
| --- | --- | --- |
| **Test scenario** | **Test case** | **Test script** |
| Test script is the software development life cycle’s ‘How to test’ component. | A test case is the software development life cycle’s ‘What to test’ component | Automated code used to execute tests |
| Test scripts are widely used in Automation Testing**.** | Test cases are primarily used in Manual Testing | Typically, automated |
| The time to execute Test scripts is less than the time to write test cases. | Test cases take a lot of time and resources to document | Line-by-line program execution |
| Requires a detailed process |  |  |
|  |  |  |

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

**Ans: -** A document that describe the scope, approach, resources and scheduled of intended testing activities.

Test planning

Test planning factors

Test planning activity

Test planning strategies

Exit criteria

**34.What is priority?**

**Ans: -** how soon the bugs should be fixed it is known as the priority

**35. What is severity?**

**ANS: -** the seriousness of the defect in the product functionality it is known as the severity

**36. Bug categories are…**

**Ans: -** functionality (critical/gernal), performance, security, security, database, UI

**38.Advantage of Bugzilla.**

**Ans: -**

**39. Difference between priority and severity**

**Ans: - same as question no 28.**

**40. What are the different Methodologies in Agile Development Model?**

**Ans: -** individual interaction

Working software

Customer collaboration

Responding into change

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

**Ans: -**