**Assignment**

**1) What is Exploratory Testing?**

A. Exploratory testing is a concurrent process where test design, execution and logging happen simultaneously.

**2) What is Traceability Matrix?**

A. Traceability Matrix is to protect against changes you should be able to trace back from every system component to the original requirement that caused its presence.

**3) What is Boundary Value Testing?**

A. Boundary value analysis is a methodology for designing test cases that concentrates software testing effort on cases near the limits of valid ranges.

**4) What is Equivalence Partitioning Testing?**

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

**5) What is Integration Testing?**

A. Integration testing performed to expose defects in the interfaces and in the interactions between integrated components or systems.

**6) What determines the level of risk?**

A. The level of risk is determined by two main factors: the likelihood the risk occurring and the impact of the risk if it does occur.

**7) What is Alpha Testing?**

A. Alpha Testing is performed in the early stages of development to identify and fix major bugs and usability issues before the software released for public.

**8) What is Beta Testing?**

A. In Beta testing a product is released to a limited group of users for feedback before it is officially released to the public.

**9) What is Component Testing?**

A. Component (Unit) testing is the testing of individual software components.

**10) What is Functional System Testing?**

A. Functional System testing is a requirement that specifies a function that a system or system component must perform a requirement may exist as a text document or a model.

**11) What is Non-Functional Testing?**

A. Non-Functional testing is the attributes of a component or system that do not relate to functionality, e.g. reliability, efficiency, usability, interoperability maintainability and portability.

**12) What is GUI Testing?**

A. Graphical User Interface (GUI) testing is the process of testing the system’s GUI of the system under test.

**13) What is Ad hoc testing?**

A. Ad hoc testing is an informal testing type with an aim to break the system.

**14) What is Load Testing?**

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

**15) What is Stress Testing?**

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

**16) What is White box Testing and list the types of white box testing?**

A. White box Testing is based on an analysis of the internal structure of the component or system.

~ Types of Coverage

* Statement coverage
* Decision coverage
* Condition coverage

**17) What is Black box Testing? What are the different black box testing techniques?**

A. Black box testing is testing either functional or non-functional, without reference to the internal structure of the component or system. ~ Techniques of Black box Testing

* Equivalence partitioning
* Boundary value analysis
* Decision tables
* State transition testing

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

A. Defects can be categorized into different types basing on the core issues they address. Some defects address security or database issues while others may refer to functionality or UI issues.

**19) Mention what Big Bang Testing is?**

A. In Big Bang integration testing all components or modules is integrated simultaneously, after which everything is tested as a whole.

**20) What is the purpose of Exit Criteria?**

A. 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

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

A. Regression testing is performed when the software or its environment is changed.

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

A. 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.

**23) Difference between QA v/s QC v/s Testing.**

A.

|  |  |  |  |
| --- | --- | --- | --- |
| **S.N.** | **Quality Assurance** | **Quality Control** | **Testing** |
| 1. | Process oriented activities. | Product oriented activities. | Product oriented activities. |
| 2. | Preventive activities. | It is corrective process. | It is preventive process. |
| 3. | It is a subset of STLC. | It is a subset of QA. | It is a subset of QC. |

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

A.

|  |  |  |
| --- | --- | --- |
| **S.N.** | **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. | This testing is performed by the developers or tester. | Sanity testing is usually performed by tester. |
| 3. | Smoke testing is a subset of Regression testing. | Sanity testing is a subset of Acceptance testing. |
| 4. | Smoke testing is like General Health Check Up. | Sanity testing is like Specialized Health Check Up. |

**25) Difference between Verification and Validation.**

A.

|  |  |  |
| --- | --- | --- |
| **Criteria** | **Verification** | **Validation** |
| Definition | 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. | The process of evaluating software during or at the end of the development process to determine whether it satisfies specified business requirements. |
| Objective | 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. | 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 fulfils its intended use when placed in its intended environment. |
| Evaluation Items | Plans, Requirement Specs, Design Specs, Code, Test Cases | The actual product/software. |
| Activities | Reviews  Walkthroughs  Inspections | Testing |

**26) Explain types of Performance Testing.**

A. Types of Performance Testing

* Load testing
* Stress testing
* Endurance testing
* Spike testing
* Volume testing
* Scalability testing

**27) What is Error, Defect, Bug and Failure?**

A. **Error**: A mistake in coding is called Error.

**Defect**: Error found by tester is called Defect.

**Bug**: Defect accepted by development team then it is called Bug.

**Failure**: Build does not meet requirement then it is Failure.

**28) What is Bug Life Cycle?**

A. The duration or time span between the first time defects is found and the time that it is closed successfully, rejected, deferred or postponed is called as Bug Life Cycle.

**29) Explain the difference between Functional Testing and Non-Functional Testing.**

A.

|  |  |  |
| --- | --- | --- |
| **S.N.** | **Functional Testing** | **Non-functional Testing** |
| 1. | Functional testing is performed using the functional specification provided 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. | Functional testing is executed first. | Non-functional testing should be performed after 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. |

**30) To create HLR & Test Case of 1. (Instagram, Facebook) only first page 2. Facebook Login Page:** [**https://www.facebook.com/**](https://www.facebook.com/)

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

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

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

A. Test planning is a document describing the scope, approach, resources and schedule of intended test activities.

\* Determining the scope, risks and identifying the objectives of testing. Defining the overall approach of testing (the test strategy), including the definition of the test levels and entry and exit criteria.

**34) What is Priority?**

A. Priority refers to the order in which defects should be fixed.

**35) What is Severity?**

A. Severity refers to the impact of a defect on overall functionality and usability of the product.

**36) Bug categories are…**

A. Bug categories are Security, Database, Functionality (Critical/General), UI.

**37) Advantages of Bugzilla.**

**38) Difference between priority and severity**

**39) What are the different Methodologies in Agile Development Model?**

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

**41) To create HLR & Test Case of Web Based (WhatsApp web, Instagram) 1. WhatsApp Web:** [**https://web.whatsapp.com/**](https://web.whatsapp.com/) **2. Instagram Web: https://www.instagram.com/accounts/login/?hl=en**

**42) To create HLR and Test Case on this Link.** [**https://artoftesting.com/**](https://artoftesting.com/)

**43) Write a scenario of only WhatsApp chat messages**

**44) Write a Scenario of Pen**

**45) Write a Scenario of Pen Stand**

**46) Write a Scenario of Door**

**47) Write a Scenario of ATM**

**48) When to used Usability Testing?**

**49) What is the procedure for GUI Testing?**

A. 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 etc.

**50) Write a scenario of Microwave Owen**

**51) Write a scenario of Coffee vending Machine**

**52) Write a scenario of Chair**

**53) To Create Scenario (Positive & Negative) 1. Gmail (Receiving Mail) 2. Online shopping to buy product (Flipkart)**

**54) Write a Scenario of Wrist Watch**

**55) Write a Scenario of Lift (Elevator)**

**56) Write a Scenario of WhatsApp Group (generate group)**

**57) Write a Scenario of WhatsApp Payment**