**Q.1 what is traceability matrix?**

**Ans-**To protect against changes you should be able to trace back from every system or component.

**Q.2- what is 7 key principles? Explain in detail?**

**Ans-1.** Testing show presence of defect

**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.

1. **Testing show presence of defect-** testing can show that defects are present, but cannot prove that there are no defect.
2. **Exhaustive testing is impossible –** testing everting including all combination of input and preconditions Is not possible
3. **Early testing-** testing activities should start a early as possible in the software or system development life cycle, and should be focused on defined objectives.
4. **Defect clustering** - most defects found during testing are are usually confined to small number modules
5. **The pesticide paradox-** testing identifies bugs ,and programmers respond to fix them.
6. **Testing is context dependent-** testing is basically context dependent.

Testing is done differently in different contexts.

1. **Absence of error fallacy.** If the system built is unusable and does not fullfill the user need and expectations the finding and fixing defects does not help.

**Q.3. what is Error, defect ,bug and failure?**

**Ans.** A mistake in coding is called error, Error found by tester is called defect, defect accepted by development team then it is called bug. Build does not meet to requirements then it is failures.

**Q.4. different between verification and validation.?**

|  |  |
| --- | --- |
| Verification | Validation |
| Verification face is done by a developers | Validation face done by tester |
| Static testing can be used | Dynamic testing can used |
| Verification face done by before coding | Validation face done by after coding |
| Verification activities , review ,walkthroughs,inspections | Testing activities |
| Are u building the product right? | Are u building the right product? |
| Plan, requirements, design, code tase case evaluation item include | The actual product |
|  |  |

**.**

**Q.5 Difference between QA v/s QC v/S tester**

|  |  |  |
| --- | --- | --- |
| QA | QC | Tester |
|  |  |  |
| It is a subset of software test life cycle. | Qc can be considered as the subset of quality assurance. | Testing is a subset of a Quality control. |
| Preventive activities . | It is corrective activists. | It is preventive process |
| Process oriented activities , | Product oriented activities. | Product oriented activities |
| Focuses on processes and procedures rather then conducting actual testing on the system. | Focuses on actual testing by executing software with intend to identify bug/ defect through implementation of procedures and process | Focuses on actual testing |
|  |  |  |
|  |  |  |
|  |  |  |

**Q.6 what is the purpose of exit criteria?**

1. Successful testing of integrated application
2. Executed test cases are documented.
3. All high prioritized bug fixed and closed.
4. Technical documents to be submitted followed by release notes

**Q.7 what is boundary value testing?**

**Ans**. Boundary value testing is software testing technique in which teste are designed to include representatives of boundary values in range.

|  |
| --- |
| **Enter age** |
| **28-65 valid** |
| **27>28- 65 invalid** |
| **28- 65< 67 invalid** |

**` Exp. Age**

**Exp .value 28-65**

**Q.8 what is Equivalence partitioning?**

**Ans**. It is a software testing techniques that divies the input data of a software unit into pattitions of eaqvaient data from which test cases cab be derived.

|  |
| --- |
| **> =1 AND value<= 100 range** |

**Exp..**

|  |  |  |
| --- | --- | --- |
| **Invalid** | **valid** | **Invalid** |
|  | **1 = 18** |  |
| **-1** | **> 1 = 100** |  |
|  | **1 = 100 <** | **101** |

**If value 1**

**Q.9 what is integration testing?**

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

**Q.10. what is component testing?**

**Ans. A minimal software item that can be tested in isolation. A unit is the smallest testable part of software.**

**Q.11 what is functional system testing?**

**Ans. A testing based on an analysis of the specification of the functionality of a component or system.**

**Q.12 what is non functional system testing ?**

**Ans. Non functional testing the attributes of a component or system that do not related to functionality eg.. reliability, efficiency, usability, maintainability and performance ,etc ,.**

**Q.13 What is white box testing and list the types of white box testing?**

**Ans. White box testing based on a analysis of the internal structure of the component or system.**

**Two types of a wite box testing**

1. **Satetment coverage.**
2. **decision coverage testing**

**Q.14** • **Explain the difference between Functional testing and NonFunctional testing**

|  |  |
| --- | --- |
| Functional testing | Non functional testing |
| Functional testing is performed using the functional specification provided by the client and verify the system against the functional requirements | Testing checks the performance, scalability, and other non functional aspects of the software system. |
| Functional testing is executed first. | Non functional testing should be performed after functional testing |
| Manual testing or automation tools can be used for functional testing | Effective tools will be using this testing |
| Business requirements are the inputs the functional testing | Performance ,scalability are inputs to non functional. |
| Easy to do manual testing | Tough to do manual testing |
| Types to do manual testing |  |
|  |  |
|  |  |

**Q.14 What is black box testing? What are the different black box testing techniques?**

**Ans . black box testing either functional or non functional, without reference to the internal structure of the component or system.**

**1 . Equivalence partitioning.**

**2.Boundary value analysis**

**3. decision table.**

**4 . state transaction testing.**

**Q.15. what is Exploratory Testing.?**

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

**Q.16 what determines the level of risk ?**

**Ans. 1 . product risk.**

**2. project risk.**

**Q.17 what is Adhoc testing.?**

**Ans. Adhoc testing is a informal testing type with an aim to break the system.**

**Q.18 what is different between the STLC and SDLC.?**

|  |  |
| --- | --- |
| SDLC | STLC |
| SDLC is a mainly related to software development. | STIC is mainly related to software testing. |
| Besides development other phases like testing is also. | It focuses only on testing. |
| SDLC involves total six phases or steps. | STLC involves only five phases or steps. |
| SDLC more number of member are required for the whole process. | In STLC less of member( tester) are needed. |
| Goal of SDLC is to complete successful development of software. | Goal of the STLC is to completed successful testing of software. |
| Help in developing good quality software. | It help in making the software defect free. |
| SDLC phases are completed before the STLC. | STLC phases are performed after SDLC phases. |

**Ans.**

**Q.19 what are the different between test scenarios, test cases, and test script.?**

**Ans.**

|  |  |  |
| --- | --- | --- |
| Test script | Test scenario | Test case |
| A set of sequential instruction that detail how to execute a core business function | **A scenario is any functionality that can be tested . it is also called test condition, or test possibility** | **Test case involve the set of steps, conditions and inputs data which can be used performing the testing tasks.** |
| Include in input data, test id, expected result are include in test script | **Test scenario are derived from use case** | **Test case are derived from test scenario** |
|  |  | **Test case are set of input and output given the system** |

**Q.20 . difference between smoke and sanity?**

|  |  |
| --- | --- |
| Smoke testing | Sanity testing |
| Smoke testing is performed to ascertain that the critical functionalities of the program is working fine. | Sanity testing is donne to check the new functionality bug have been fixed. |
| The objective of this testing is to verify stability of the system. | The objective of the testing is to verify the rationality of the system . |
| The testing is performed by the developers and testers. | Sanity testing is performed by tester |
| Smoke testing is usually documented  or scripted. | Sanity testing is usually not documented  and is unscripted. |
| Smoke testing is a subset of regression testing | Sanity testing is a subset of acceptance testing |
| Smoke testing is a general health check up | Sanity testing is a specialized health check up |

**Q.21 what is GUI ?**

**Ans . GUI testing is the process of the testing the system GUI of the system under test. GUI testing in involves checking the screens with the controls like menus, buttons, icons, and all type of bars.**

**1 error message are display correctily .**

**2. font used in applications is readable.**

**3. image is good clarity.**

**4. image are proper aligned.**

**GUI testing is approach is three type.**

**1 manual based testing. Graphical screens are checked manually by tester in conformance with the requirements.**

**2. record and reply. This is done in 2 parts during record test septs are captured into the automations tools . during paly back the record test steps.**

**3 model based testing. Build the model determine inputs for the modal calculate expected output for the modal run the teste compare the actual output with the expected output.**

**Q. 22 what is load testing?**

**Ans . Load testing is kind of performance testing in which determines system is perform under real life load condition, the testing help determines how the application behave when multiple user access simultaneously.**

**Q.23 what is stress testing ?**

**Ans . stress testing is beyond the normal operating point and evaluates how the system work under those extreme load condition.**

**Q.24 what is ALPHA testing ?**

**Ans. Alpha testing is definitely performed and carried out at the developing organizations location with the involvement of developers. And it comes under category of both white box and black box testing.**

**Q.25 what is Beta Testing ?**

**Ans. Beta testing is performed and carried out by user or you can say people at their own locations an site using customer data. And its kind of only white box test.**

**Q.26 when should “Regression testing” be performed ?**

**Ans regression testing means testing your software application when it undergoes a code change to ensure that the new code has not affected other part of the software.**

**Q.27 Explain types of performance testing ?**

**Ans. Two types of the performance testing**

**1. Load testing . load testing is a system under workload and not break the system .**

**2. Stress testing . stress testing is a extreme work load condition and then tries to the break the system software.**

**Q.28 . explain the difference between priority and severity.?**

|  |  |
| --- | --- |
| Severity | Priority |
| Severity is a absolute. | Priority is a relative. |
| Severity is customer focused . | Priority is a business focused. |
| Severity is extent to which the defect can affect the software. | Priority is defines the order in which we should resolve a defect. |
| Severity type:  critical  High  Medium  Low  Cosmetic. | Priority is set bye the tester and developer side . |
|  | Priority type:  Critical  High  Medium  Low. |

**Q. 29 what is bug life cycle ?**

**Ans . a computer bug is an error, flow, mistake, failure, or fault in a computer program that prevents it from working correctly or produces an incorrect result. Bug arise from mistakes and error**

**Q.30 explain what test plan is ?what is the information that should be covered.**

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

**Q.31 what is priority?**

**Ans. Priority defines the order in which we should resolve a defect. Should we fix if now, or can it wait? This priority status is set by the tester to the tester to the developer mentioning the time frame to fix the defect.**

**Q.32 what is severity?**

**Ans, it is the extent to which the defect can affect the software .**

**Q.33.Bug categories are?**

**Ans . 1. Data base defect.**

**2. Critical functionality defect.**

**3. Functionality defect.**

**4. Security defect.**

**5. user interface defect.**

**Q.34 Advantage of bugzilla.?**

1. **Key features of Bugzilla includes.**
2. **Advanced search capabilities.**
3. **E- mail notifications.**
4. **Modify/file bug by e-mail.**
5. **Time tracking .**
6. **Strong security.**
7. **Customization.**
8. **Localization.**

**Q,35 Explain the differences between authorization and authentication in web testing.? What are the common problems faced in web testing?**

|  |  |
| --- | --- |
| Authentication | Authorization |
| In the authentication process, users or persons are verified. | This process are same as user or persons are verified. |
| Its done before the authorization | While the process is done after the authentication process. |
| It needs usually the user’s login details | While its need the user’s privilege or security levels |
| Authentication determines whether the person is user or not | While it determines what permission does the user have? |
|  |  |

**Q.36 what are the different methodologies in agile development model.?**

**Ans. 1**. Scrum .

**2**. Kanban **.**