#Assignment software testing #
#Module 2#

1)What is Exploratory testing?
Ans:-Exploratory testing is an approach to software testing that is often described as simultaneous learning,test design and execution.
Exploratory tests are all about testers exploring an application to identify and document potential bugs.

2)What is traceability matrix?
Ans:-It is used to prove that tests have been run.it documents test cases,test runs and test results. Requirements and issues may also be used in a test matrix.

3)What is boundary value testing?
Ans:-Boundary value testing is a type of black box or specification based testing technique in which tests are performed using the boundary values.
Ex.Any values between 18 and 65 are valid values, while anything below the minimum or above the maximum is invalid.

4)What is Equivalence partitioning testing?
Ans:-Equivalence partitioning is a software testing technique that divides the input data of a software unit into partition of equivalent data from which test cases can be derived.

5)What is integration testing?
Ans:-Integration testing is the process of testing the interface between two software units or modules. It focuses on determining the correctness of the interface. The purpose of integration testing is to expose faults in the interaction between integrated units. Once all the modules have been unit tested, integration testing is performed.

6)What determines the level of risk?
Ans:-The likelihood of an adverse event and the impact of the event.

7)What is alpha testing?
Ans:-Alpha testing is the initial phase of validating whether a new product will perform as expected.

8)What is beta testing?
Ans:-Beta test is the second phase of software testing in which a sampling of the intended audience tries the product out.

9)What is component testing?
Ans:-Component testing is defined as a software testing type,in which the testing is performed on each individual component separately without integrating with othe components.it's also

referred to as module testing when it is viewed from an architecture perspective.component testing is also referred to as unit testing program testing or module testing.

10)What is functional system testing?
Ans:-It is a type of software testing which is used to verify the functionality of the software application whether the function is working according to the requirement specification.

11)What is non functional testing?
Ans:-Non-functional testing is a type of software testing to test non functional parameters such as usability, compatibility, performance of the software.

12)What is GUI testing?
Ans:-It is one of the unique types of software testing that is frequently used to check the graphical user interface for the application or the software.

13)What is Adhoc testing?
Ans:-Adhoc testing is an informal or unstructured software testing type that aims to break the testing process in order to find possible defects or errors at an early possible stage.

14)What is load testing?
Ans:-This type of performance testing allows you to determine how your web application will behave during normal and peak load conditions,as well as its breaking point .

15)What is stress testing?
Ans:-This type of performance testing used to check the accessibility and robustness of software beyond usual functional limits.

16)What is white box testing and list the types of white box testing.
Ans:- White box testing is a software testing method in which the functionalities of software applications are tested with having knowledge of internal code structure and internal path.it is also known as glass box testing,clear box testing, structure box testing.
1-test code coverage
2-statement coverage
3-condition coverage
4-decision coverage

17)What is black box testing? What are the different black box testing technique?
Ans:- Black Box testing is a software testing method in which the functionalities of software applications are tested without having knowledge of internal code structure and internal path.it is also known as behavioral testing.
1-Equivalence partitioning
2-Boundary value analysis
3-Decision tables
4-State transaction testing

5-Use case testing

18) Mention what are the categories of defects?
Ans:-Arithmetic defects
Logical defects
Syntax defects
Multithreading defects
Interface defects
Performance defects

19) Mention what bigbang testing is ?
Ans:- Bigbang testing is an integration testing strategy where in all units are linked at once, resulting in a complete system.when this type of testing strategy is adopted ,it is difficult to isolate any errors found , because attention is not paid to verifying the interfaces across individual units.

20)What is the purpose of exit criteria?
Ans:- Exit criteria is used to determine whether a given test activity has been completed or not.Exit criteria can be defined for all of the test activities right from planning, specification and execution.Exit criterion should be part of test plan and decided in the planning stage.

21)When should "Regression Testing" be performed?
Ans:-
1-A new requirement is added to an existing feature.
2-A new feature or functionality is added.
3-The codebase is fixed to solve defects.
4-The source code is optimised to improve performance.
5-Patch fixed are added.
6-A new version of the software is released.
7-changes in configuration.

22)What is 7 key principles? Explain in detail.
Ans:-
1.testing shows presence of defects:-
Testing can show that defects are present, but cannot prove that there are no defects.Testing reduces the probability of undiscovered defects remaining in the software but, even if no defects are found, it is not a proof of correctness.

2-exhaustive testing is impossible:-
Testing everything including all combinations of inputsand preconditions is not possible.So, instead of doing the exhaustive testing we can use risks and priorities to focus testing efforts.

3-early testing :-

Testing activities should start as early as possible in the software or system development life cycle, and should be focused on defined objectives.Testing activities should start as early as possible in the development life cycle

4-defect clustering:-

A small number of modules contain most of the defects discovered during pre-release testing, or are responsible for the most operational failures.Defects are not evenly spread in a system

5-the pesticide paradox :-

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

6-testing is context dependent:-

Testing is basically context dependent.Testing is done differently in different contextsDifferent kinds of sites are tested differently.

7-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.If we build a system and, in doing so, find and fix defects

23) Difference between QA v/s QC v/s Tester.
Ans:-

QA(quality assurance)
1.Aims to prevent defects.
2.Is a preventive technique.
3.It is the duty of the complete project team.
4.Comes under the category of varification.
5.Is a process oriented exercise.
6.Does not involve executing the program or code.

QC(quality control)
1.Aims to identify and fix defects.
2.Is a corrective technique.
3.It is only the duty of the testing team.
4.Comes under the category of validation.
5.Is a product oriented exercise.
6.Involves executing the program or code.

Tester
1.The process of exploring a system in order to find defects.
2.system inspection and bug finding.

3.product oriented.
4.its activity type is corrective.
5.Aim is to control the quality.

24) Difference between smoke and sanity.
Ans:-
Smoke testing
1.The goal of smoke testing is to verify stability.
2.Software developers or testers perform smoke testing.
3.it is a subset of acceptance testing.
4.Smoke testing is documented or scripted.
5.The software build may be either stable or unstable during smoke testing.

Sanity testing
1.The goal of sanity testing is to verify rationality.
2.Testers alone perform sanity testing.
3.It is a subset of regression testing.
4.Sanity testing is not documented or scripted.
5.The software build is relatively stable at the time of sanity testing.

25) Difference between Verification and Validation.
Ans:-
Verification:-
1.it is process of checking if a product is developed as per the specification.
2.it tests the requirements, architecture, design and code of the software product.
3.it does not require executing the code.
4.a few activities involved in verification, design verification,and code verification.
5.a few verification methods are inspection,code review,desk checking and walkthrough.

Validation:-
1.it is a process of ensuring that the product meets the needs and expectations of stakeholders.
2.it tests the usability, functionalities,and reliability of the end product.
3.it emphasizes executing the code to test the usability and functionality of the end product.
4.the commonly used validation activities in software testing are usability testing, performance testing, system testing, security testing and functionality testing.
5.a few widely used validation methods are black box testing, white box testing, integration testing, and acceptance testing.

26) Explain types of performance testing.
Ans:-
1)Load testing:- check the application's ability to perform under anticipated user loads.
2)Stress testing:- involves testing an application under extreme workloads to see how it handles high traffic or data processing.

3) Endurance testing:- is done to make sure the software can handle the expected load over a long period of time .
4) Spike testing:- tests the software's reaction to sudden large spikes in the load generated by users.
5) Volume testing:- under volume testing large no. Of data is populated in a database,and the overall software system's behaviour is monitored.
6) Scalability testing:- the objective of scalability testing is to determine the software application's effectiveness in "scaling up" to support an increase in user load.

27)What is Error, Defect,Bug and failure?
Ans:-
Error:-an error is a mistake, misconceptions, or misunderstanding on the part of a software developer.

Defect:-it can be simply defined as a variance between expected and actual.

Bug:-a bug is the result of a coding error.

Failure:-a failure the inability of software system or component to perform its perform its required functions within specified performance requirements.

28) Diffrence between priority and severity.
Ans:-
PRIORITY:-
1-priority means how fast defect has to be fixed
2-priority is related to scheduling to resolve the problem.
3-product manager decides the priorities of defects.
4-its value is subjective.
5-its value changes from time to time.

SEVERITY:-
1-severity means how severe defect is affecting the functionality.
2-severity is related to the quality standard.
3-testung engineer decides the severity level of the defect.
4-its value is objective.
5-its value doesn't change from time to time.

29)What is Bug life cycle?
Ans:- Bug life cycle is the journey of a defect cycle ,which a defect goes through during its lifetime .

30)Explain the difference between functional testing and non functional testing.
Ans:-

FUNCTIONAL TESTING:-
1-it verifies the operations and actions of an application.
2-it is based on the requirements of the customer.
3-it helps to enhance the behavior of the application.
4-functional testing is easy to execute manually.
5-it tests what the product does.

NON-FUNCTIONAL TESTING:-
1-it verifies the behavior of an application.
2-it is based on the expectations of the customer.
3-it helps to improve the performance of the application.
4-it is hard to execute non functional testing manuallym.
5-it describes how the product does.

31)What is the difference between the STLC and SDLC ?
Ans:-
SDLC:-
1-sdlc is mainly related to software development.
2-besides development other phases like testing is also included.
3-sdlc involves total size phases.
4-in sdlc, more number of members are required for the whole process.
5-it helps in developing good quality software.

STLC:-
1-stlc is mainly related to software testing.
2-it focuses only on testing the software.
3-stlc involves only five phases.
4-in stlc, less number of members are needed.
5-it helps in making the software defects free.

32)What is the difference between test scenarios, test cases, and test script ?
Ans:-
TEST SCENARIO:-
1-these are high level actions.
2-it takes less time as compared to test cases.
3-test scenario are easy to maintain.
4-the test scenario are work on the basic to "what to be tested".

TEST CASES:-
1-there are low level actions.
2-it takes more time as compared to test scenario.
3-the test cases are hard to maintain.
4-the test case is work on the basics of "how to be tested".

TEST SCRIPT:-
1-test scripts are widely used in automation testing.
2-test case serves as an outline for writing test script.
Test script is a program that runs various test data on the functionality of an application.

33)Explain what test plan is ? What is the information that should be covered.
Ans:- A test plan is a detailed document that catalogs the test strategies, objectives, schedule, estimation, deadline,and resources required to complete that project.

34)What is priority?
Ans:-priority means how fast defect has to be fixed.

35)What is severity?
Ans:-severity means how severe defect is affecting the functionality.

36)Bug categories are….
Ans:-1) performance bug 2) security bug 3)unit level bug 4) functional bug 5) usability bug 6) syntax errors 7) compatibility errors 8)logic bugs 9)low priority defects 10) medium priority defects 11)high priority defects 12)urgent defects 13)low severity bugs 14) medium severity bugs 15)high severity bugs 16) critical bugs

37)Advantage of Bugzila.
Ans:-
1-open source, free bug tracking tool
2-automatic duplicate bug detection
3-search option with advanced features.
4-file/modify bugs by email.
5-move bugs between installs.
6-time tracking.

38)What are the different methodologies in agile development model?
Ans:-1)kanban 2)scrum 3) extreme programming 4) crystal 5) dynamic systems development method 6) feature-driven development

39)Explain the difference between Authorization and Authentication in web testing. What are the common problems faced in web testing?
Ans:-
AUTHORIZATION:-
1-determines what users can and cannot access.
2-verifies whether access is allowed through policies and rules.
3-usually done after successful authentication.
4-generally,transmits info through an access token.

AUTHENTICATION:-
1-determines whether users are who they claim to be.
2-challenges the user to validate credentials.
3-usually done before Authorization.
4-generally, transmits info through an ID token.

40)When to used usability testing?
Ans:-when application or project completely design and develop and then after testing it and it has no bug or error than we use usability testing for user using flexibility.

41)What is the procedure for GUI testing?
Ans:-1-manual testing
2-record and replay testing
3-model base testing