Module-2(Manual Testing)

Q1.) What is error?

A mistake in coding is called error.

Q2.) What is defect?

Error found by tester is called defect.

Q3.) What is bug?

Defect accepted by development team then it is called bug.

Q4.) What is failure?

Build does not meet the requirement then it is called failure.

Q5.) What is traceability matrix?

The protect against changes you should be able to track back from every system component to the original req. That caused its present.

Q6.) What is boundary value testing?

A black box test design technique in which test case are design to execute representative from boundary value analysis.

Q7.) What is equivalence partitioning testing?

Equivalence Partitioning is a black box test design technique in which test case are design to execute representative from Equivalence Partitioning.

Q8.)What is integration testing?

Testing the data flow between two modules is called integrating testing.

Q9.)What is component testing?

The testing of individual software components.

Q10.) What is functional system testing?

Functional System Testing : A requirement that specifies a function that a system or system component must perform

Q11.) What is Non-functional 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 includes, but is not limited to, performance testing, load testing, stress testing, usability testing, maintainability testing, reliability testing and portability testing.

Q12.) What is white box testing and list the types of white box testing?

White Box Testing: Testing based on an analysis of the internal structure of the component or system.

Structure-based testing technique is also known as ‘white-box’ or ‘glass-box’ testing technique because here the testers require knowledge of how the software is implemented, how it works.

Q13.) What is black box testing? What are the different black box testing techniques?

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

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

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

Q14.) Mention what bigbang testing ?

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.

The major disadvantage is that in general it is time consuming and difficult to trace the cause of failures because of this late integration.

Here all component are integrated together at once, and then tested.

Q15.) What is 7 key principles? Explain in detail?

1.Testing shows present of defects

-Testing shows that of defect are present.but can not prove that there are no defects

-Testing reduces that probability of undercovered defect remaining in the software but even if not defect are found it is not a proof of correctness

-we test to find fault

2. Exhaustive testing is impossible

-Testing everything is including all combination of input and precondition is not possible

- Require anormous resources

-Is too expensive

-Takes to long

-It is therefore impractical

3. Early testing

-Testing activities should start as early as possible in the development life cycle

4. Defect clustering

-Defect are not evently spread in a system

-They are clustered

-In orther words most defect found during testing are usually confirmed to a small no of modules

- Similarly most operational failure of a system are usually confirmed to a small no of module

5. Pesticide paradox

-If the same test are repeated over and over again eventually the same test cases will no longer find any new defects

-To overcome this pesticide paradox the test cases need to be regularly review and revisited for potentially find more defects

6. Testing the context dependent

-Different kind of sites are tested differently

-Safety- critical software is tested differently from an e commerce site

7. Absence of errors fallacy

-Even after defects have been resolved it may still be unusable and/or does not fulfil users need and expectations

Q16.) Difference between QA v/s QC v/s Tester.

S.N.	Quality Assurance	Quality Control	Testing
1	Activities which ensure the implementation of processes,procedures and standards in context to verification of developed software and intended requirements.	Activities which ensure the verification of developed software with respect to documented (or not in some cases) requirements.	Activities which ensure the identification of bugs/error/defects in the Software.
2	Focuses on processes and procedures rather than 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.
3	Process oriented activities.	Product oriented activities.	Product oriented activities.
4	Preventive activities.	It is a corrective process.	It is a preventive process.
5	It is a subset of Software Test Life Cycle (STLC).	QC can be considered as the subset of Quality Assurance.	Testing is the subset of Quality Control.

Q17.) Difference between verification and Validation

S.N.	Verification	Validation
1	The process of evaluating	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.	software during or at the end of the development process to determine whether it satisfies specified business requirements
2	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 fulfills its intended use when placed in its intended environment.
3	Are we building the product right?	Are we building the right product?
4	Plans, Requirement Specs, Design Specs, Code, Test Cases	The actual product/software.
5	Reviews,Walkthroughs,Inspections	Testing

Q18.) Explain the difference between Functional testing and NonFunctional testing

S.N.	Functional testing	Non-functional testing
1	A requirement that specifies a function that a system or system component must perform	Testing the attributes of a component or system that do not relate to functionality, e.g. reliability, efficiency, usability, interoperability, maintainability and portability.
2	Functional testing is executed first	Non functional testing should be performed after functional testing
3	Manual testing or automation tools can be used for functional testing	Using tools will be effective for this testing
4	Business requirements are the inputs to functional testing	Performance parameters like speed , scalability are inputs to non-functional testing.

5	Functional testing describes what the product does	Nonfunctional testing describes how good the product works
6	Easy to do manual testing	Tough to do manual testing
7	Types of Functional testing are · Unit Testing · Smoke Testing · Sanity Testing · Integration Testing · White box testing · Black Box testing · User Acceptance testing · Regression Testing	Types of Nonfunctional testing are · Performance Testing · Load Testing · Volume Testing · Stress Testing · Security Testing · Installation Testing · Penetration Testing · Compatibility Testing · Migration Testing

Q19.)What is exploratory testing?

Exploratory testing is often described as simultaneous learing,test design & execution.

Q20.) What determines the level of risk?

A factor that could result in future negative consequences usually expressed as impack and likelihood.

Types of risks. Project risks & product risks

Q21.)What is adhoc testing?

When a software testing performed without proper planning and documentation its called ad-hoc testing.

Q22.) What is the purpose of exit criteria?

Defines the items that must be completed before testing can be concluded.

In an ideal world you will not enter next stage until the exit criteria for the previous stage is met but practically this is not always possible.

Q23.) When should regression testing be performed?

Regression testing is necessary after any feature (or application) enhancement, bug fix, or configuration changes. For example, when developers add a new widget to an application.

Q24.) Different between smoke & sanity?

SRNO	SMOKE TESTING	SANITY TESTING
1	check critical functionality	check new functionality
2	it is done in initial stage	it is done after 30 build
3	it is check stability	it check sanity/relationality
4	part of acceptance testing	part of regression testing
5	general health checkup	advance health checkup
6	done by tester or developer	done by tester
7	it check system end to end	it check only a particular function of entire system
8	20 test cases it should take 30 min to test sanity testing	

Q25.)Explain types of performance testing?

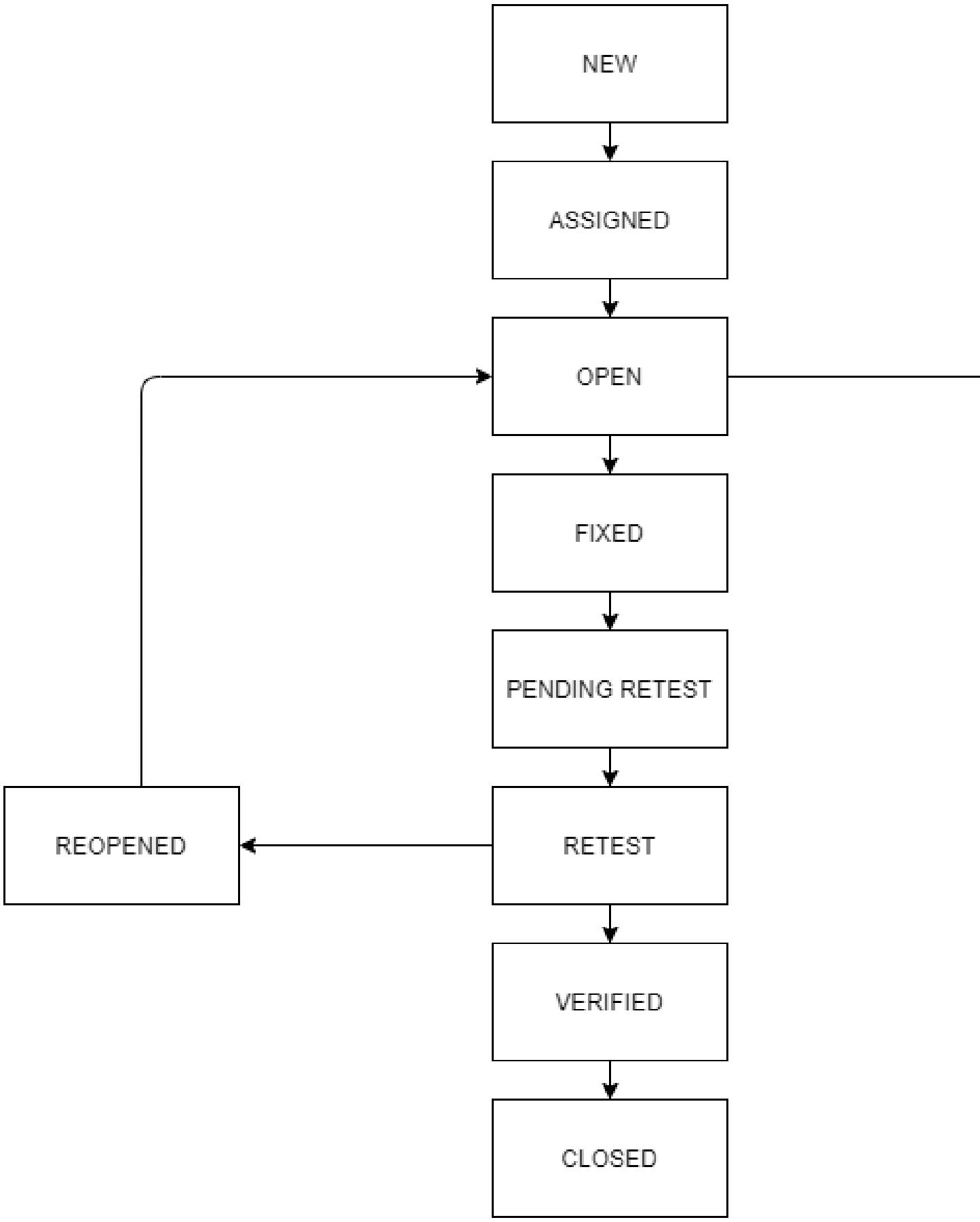
1.) load testing

2.) Stress testing

3.) Volume testing

4.) Scalability testing.

Q26.) What is bug life cycle?


NEW
ASSIGNED
OPEN
FIXED
PENDING RETEST
REOPENED
RETEST
VERIFIED
CLOSED

Q27.)Mention what are the categories of defects?

Data quality /database defects –deals with improper handling of data in the database.

Examples:-values not deleted/inserted into the database properly. improper/wrong/null vales inserted in palace of actual values.

Functionality defects:- these defect affects the functionality of the application examples: all java scripts error, button likes save, delete, cancel not performing their intended functions, a missing functionality a feature not functioning they way it is intended to , continue execution of loops

Security defects:- application security defects generally involve improper handling of data send from user to the application, these defects are the most severe and given for a fix. Examples:- authentication: accepting an invalid username/password. Authorization: accessibility to page through permission not given.

User interface defects:-as the name suggests the bug deal with problems related to UI are usually consider less severe. Examples:- improper errors/warning/UI message. Spelling mistake. Alignment problems.

Q28.) Difference between priority or severity?

Severity:- severity is absolute and customer focused it is extend to which is the defect can affect the software.

Types of severity:-critical, major(high), moderate(medium), minor(low).

Priority:- priority is relative and business focused priority defines the order in which we should resolve a defect should we fixed it now or can it wait? This priority status is set by test to the developer mentioning the time frame to fix the defects.

Types of priority:-low, medium, high.

Q29.)What is difference between SDLC & STLC?

SDLC	STLC
SDLC is mainly related to software development.	STLC is mainly related to software testing.
Besides development other phases like testing is also included.	It focuses only on testing the software.
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.
In SDLC, development team makes the plans and designs based on the requirements.	In STLC, testing team(Test Lead or Test Architect) makes the plans and designs.
Goal of SDLC is to complete successful development of software.	Goal of STLC is to complete successful testing of software.
It helps in developing good quality software.	It helps in making the software defects free.
SDLC phases are completed before the STLC phases.	STLC phases are performed after SDLC phases.
Post deployment support , enhancement , and update are to be included if necessary.	Regression tests are run by QA team to check deployed maintenance code and maintains test cases and automated scripts.
Creation of reusable software systems is the end result of SDLC.	A tested software system is the end result of STLC.

Q30.) What is difference between test scenarios, test cases, test script?

Test scenarios:-Test scenarios are one liner but it is associated with multiple test cases.

Test cases:-Test cases are set of positive & negative executable steps of test scenario which has a set of pre-condition, test data, expected result, actual result and post-condition.

Test script:-A set of sequential instruction that detail how to execute a core business function.

Q31.) What is alpha testing?

It is always performed by the developers at the software development side.

Sometimes it is also performed by independent testing team

Alpha testing is not open to market & public

It is conducted for the software application and project.

Q32).What is beta testing?

it is always performed by the customer at their own site

it is not performed by the independent testing team.

beta testing is always open to the market & public.

it is usually conducted for the software product.

Q33.)What is load testing?

load testing :-Test the system behavior under the normal workload conditions and it is just testing or simulating with the actual workload.

Q34.)What is stress testing?

Stress testing:- test the system behavior under the extreme conditions and it is carried out till the system failure.

Q35.)Explain what test plan is? What is the information that should be covered?

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 requirements phase testing.

-preparation of test plan/strategy document for various types of testing

-test tool selection

-test effort estimation

-resource planning and determining role and responsibilities

-Training requirements

:-Deliverables of requirements phase testing

- Test plan/test strategy document

-Effort estimation document

Q36.)Bug categories are?

-Bug categories:- security, database, functionality (critical/general), UI.

Q37.) Advantage of bugzilla?

-Bugzilla is open source issue/bug tracking system.

- Bugzilla is defect tracking tools.

-This open bug tracker enables users stay connected with their clients, employees to communicate about problems effectively throughout data management tools.

-Advanced search capabilities

-E-mail notifications

-Modify/file bug by e-mail

-Time tracking, strong security, customization, localization.

Q38.) Explain the different between authorization and authentication in web testing .What are the common problems faced in web testing?

Authentication	Authorization
In the authentication process, the HYPERLINK "https://www.geeksforgeeks.org/authentication-in-computer-network/"identity of users are HYPERLINK "https://www.geeksforgeeks.org/authentication-in-computer-network/" checked for providing the access to the system.	While in authorization process, HYPERLINK "https://www.geeksforgeeks.org/what-is-aaa-authentication-authorization-and-accounting/"a the HYPERLINK "https://www.geeksforgeeks.org/what-is-aaa-authentication-authorization-and-accounting/" person's or user's authorities are checked for accessing the resources.
In the authentication process, users or persons are verified.	While in this process, users or persons are validated.
It is done before the authorization process.	While this process is done after the authentication process.
It needs usually the user's login details.	While it needs 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?**
Generally, transmit information through an ID Token.	Generally, transmit information through an Access Token.

Cross browser compatibility, responsiveness, cross device compatibility, security, integration testing, performance testing, application getting slow, usability testing, entry and exit points, checking the standards and compliance, firewalls, accessibility testing, project deadline, user experience, web service requests, user input validation.

Q39.) What are the different methodologies in agile development model?

Scrum, kanban, lean(LN), dynamic system development method(DSDM), extreme programming(XP), crystal, adaptive software development(ASD), agile unified

process(AUP),crystal, crystal clear methods, disciplined agile delivery, feature-driven development (FDD), scrumban, RAD rapid application development.

Q40.) When to used usability testing?

Customer requirements fulfil, easy to understand, engaging

Ex. Which device atm, microwave

When usability testing is done designing phase.

In which app to use

Dating(tinder) shadi.com, like, comment, share, block(icon) (fb, instagram) . which user are using the system datig/marriage bachelors, students, working men & women.

Analysis. How much time it takes, user understand the terms used in system, easy or not, how much clicks he does/if anything distracts him, whichever task he select check whether it is successful or not.

Q41.) What is the procedure for GUI testing?

GUI testing involves checking the screens with the controls like menu, button, icons and all types of bars tool bars, menu bar, dialog box and windows etc

Check all GUI elements for size, position, width, length and acceptance of characters or numbers. You must be able to provide inputs to the i/p fields.

Check you can execute the intended functionality of the application using the GUI.

Check error message are displayed correctly. check clear demarcation of different sections on screen. Check font used in application is readable. Check the alignment of text is proper, check the color of the font and waring message is aecthetically pleasing. Check that the images have good clearity. Check that the image have properly aligned. Check the positioning of GUI for different screen resolution.

Q42.) What is priority?

Priority is relative and business focused priority defines the order in which we should resolve a defect should we fixed it now or can it wait? This priority status is set by test to the developer mentioning the time frame to fix the defects.

Q43.) What is severity?

Severity is absolute and customer focused it is extend to which is the defect can affect the software.