PRATIXA MISTRY

MODULE 2

1. Difference between QA v/s QC v/s Testing

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.

2. Difference between Smoke and Sanity?

Smoke Testing	**Sanity Testing**
Smoke Testing is performed to ascertainthat the critical functionalities of the program is working fine	Sanity Testing is done to check the new functionality / bugs have been fixed
The objective of this testing is to verify the "stability" of the system in order toproceed with more rigorous testing	The objective of the testing is to verify the "rationality" of the system in order to proceed with more rigorous testing
This testing is performed by the developers or testers	Sanity testing is usually performed by testers
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 exercises the entire system from end to end	Sanity testing exercises only the particular component of the entire system
Smoke testing is like General Health Check Up	Sanity Testing is like specialized health check up

3. Difference between verification and Validation

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 fulfills its intended use when placed in its intended environment.
Question	Are we building the product right?	Are we building the right product?
Evaluation Items	Plans, Requirement Specs, Design Specs, Code, Test Cases	The actual product/software.

Activities	• Reviews • Walkthroughs • Inspections	• Testing

4. Explain the difference between Functional testing and Non-Functional testing

Functional Testing	Non-Functional Testing
Functional testing is performed using the functional specification provided by the clientand verifies the system against the functional requirements.	Non-Functional testing checks the Performance, reliability, scalability and othernon-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	Using tools will be effective for this testing
Business requirements are the inputs to functional testing	Performance parameters like speed, scalabilityare inputs to non-functional testing.
Functional testing describes what the product does	Nonfunctional testing describes how good the product works
Easy to do manual testing	Tough to do manual testing

Types of Functional testing are	Types of Nonfunctional testing are
• Unit Testing • Smoke Testing • Sanity Testing • Integration Testing • White box testing • Black Box testing • User Acceptance testing • Regression Testing	• Performance Testing • Load Testing • Volume Testing • Stress Testing • Security Testing • Installation Testing • Penetration Testing • Compatibility Testing • Migration Testing

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

Aspect	SDLC	STLC
Domain	SDLC is mainly related to software development.	STLC is mainly related to software testing.
Focus	Besides development other phases like testing is also included.	It focuses only on testing the software.
Phases	SDLC involves total six phases or steps.	STLC involves only five phases or steps.
Number of Member	In SDLC, more number of members (developers) are required for the whole process.	In STLC, less number of members (testers) are needed.
Team Involved	In SDLC, development team makes the plans and designs based on the requirements.	In STLC, testing team makes the plans and designs.
Objective	Goal of SDLC is to complete successful development of software.	Goal of STLC is to complete successful testing of software.
End Result	It helps in developing good quality software.	It helps in making the software defects free.

Aspect	SDLC	STLC
Execution	SDLC phases are completed before the STLC phases.	STLC phases are performed after SDLC phases.
Maintenance	Post deployment support, enhancement, and update are to be included if necessary.	Regression tests are run by QA team to check deployed maintenance.

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

Test Case	Test Script	Test Scenarios
Test Case is a step by step procedure to test any functionality of the software application/product.	Test Script is set of instructions or a short program to test any functionality of software application/product.	A test scenario is a high-level document that describes end-to-end functionality to be tested.
It's a manual approach of software testing.	it's an automatic approach of software testing.	Test scenarios are focused on what to test.
It is a set up that is used by the tester to test any specific function of the software product.	It is a program developed by the tester, intended to test any specific function of the software product.	These are high-level actions.
Test Cases are written manually.	Test Scripting is done by scripting format.	It will take less time as compared to test cases.
Test case is developed in form of templates.	Test script is developed in form of scripting.	Test scenarios are really easy to maintain due to their high-level design.
Test Case is used in manual testing environment.	Test Script is used in automatic testing environment.	Fewer resources are sufficient to write test scenarios.

Test Case	Test Script	Test Scenarios
Requires more resources and time.	Requires less time for testing scripts.	
Suitable for initial phases of testing when software requirements are still changing.	Suitable for stable software where regression testing is frequent.	