1. Defect Bug Cycle?

Defect bug cycle in software testing is a specific set of states that defect or bugs goes through in its entire life. It helps to easily coordinate and communicate current status of defect, starting as soon as when defect arises and ends when defect is solved.

* New – When a new defect is formed and reported for the first time
* Rejected – Defect will be rejected by the developer if it’s not valid.
* Open – The developer will accept the bug and works on the defect.
* Duplicate – If the bug is repeated twice to the same concept, the it is duplicate.
* Assign - The bug will be assigned to the developer.
* Fixed – The bug will be fixed by the developer.
* Test – Resolved defect will be retested by the tester.
* Verified – The tester will verify the module free of bug, then it will be set as verified.
* Re-opened – If the bug still exists, the it will be reopened for further test.
* Closed - If the test is completed and free of bugs.

1. What is Test metrics?

Test metrics is defined as graphical representation which measures the percentage of work completed. It also includes the percentage of work yet to be completed and the time to complete the remaining work.

Required data for writing test metrics are:

* No of Requirements
* Average number of test case/ requirement
* Total number of test case
* Number of test case passed
* Number of test case failed
* Number of testcases unexecuted
* Number of testcases blocked
* Number of test cases executed
* Total number of bugs
* Critical bugs
* High bug
* Low bug
* Medium bug
* Number of defects found in User Acceptance Testing

1. What is Test/QA activities?

QA Activities is designed for product evaluation and process monitoring. It helps to assure the processes are correctly carried out as per process plans.

The main process involved are:

* Understanding the requirements
* Identify the test scenario
* Designing test cases
* Test bed
* Execute test cases
* Log test results (Pass/Fail)
* Bug report
* Retest
* Report to test lead
* Creating automation scripts
* Recommendation

1. Principles of Software Testing?

The seven principles of Software testing are;

1. Start software testing at early stage – Documentation processes for the actual test should be started before getting the software.
2. Test software in order to find the defect – The tester should be aware of the defects that may occur during testing.
3. Highly impossible to give complete bug free software to the customer.
4. Shouldn’t do exhaustive testing – The tester should be aware that he/she should avoid using same test data on the retest of the same build.
5. Testing is context based – The tester should be aware of the application in which testing takes place and should test according to the needs. Example; For web testing, the testing should be based on the performance.
6. Should follow concept of pesticide paradox – Test cases once used for testing a module shouldn’t be used again for the next build, since the bug is already solved in the previous test case.
7. Should follow defect clustering – The tester should identify the module with higher defect content. This defect should be solved first. An experienced tester can easily identify the module with higher defect/bug.