**1) Why testing is required?**

Testing is required to improve quality and to meet end user requirements without fail.

**2) What types of application we test?**

We can test GUI, Web based and Mobile Applications.

**3) What is SDLC and different phases in SDLC?**

SDLC is Software Development Life Cycle; it is a process to build a software application.

**Phases:**

**Requirements Gathering**

**Analysis/ Planning**

**Design**

**Development**

**Testing**

**Maintenance**

**4) What is waterfall method?**

It is a method in SDLC to develop a software application .In this Method we can start new phase of SDLC after finishing previous phase.

**Requirements Gathering**

**Analysis/Planning**

**Design**

**Development/Coding**

**Testing**

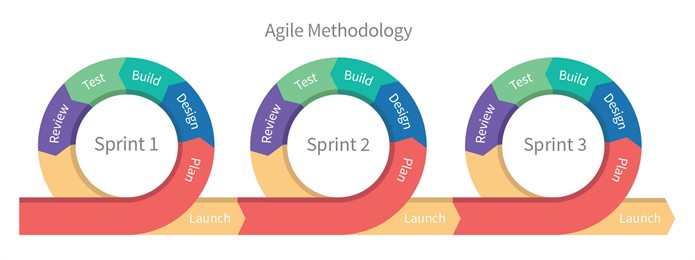
**Maintenance**

**5)** **What is agile method?**

It is an incremental SDLC model. Here we have small increments to finish project fast.

Here every increment produces working software, every increment like mini V-model.

We can adopt requirements at any time.



**6)** **What is scrum methodology?**

It is a Frame work for developing complex products and projects. It work in series of Sprints , Mostly 2 weeks of duration, every sprint start with sprint plan meeting conducted by Scrum Master with Development team and product owner. In this they select high priority items (Sprint Backlog) from Product back log to work on Sprint duration. During the sprint duration they conduct daily sprint meeting (Review of every day work). Sprint end with two rituals, one is Sprint Review which gives a chance for development team to demonstrate new functionalities and Sprint retrospective which will helps to things improvement for next sprint .End of the sprint they release work to end user.

**7)** **What is the process in agile model?**

In agile model we divide the project in to small sprints and we work on that to deliver the project fast to end user. Here every sprint has time duration to finish. They start working on Prioritized list.

**8) What are product back log items?**

It is a prioritized requirement list. Product owner creates Product Back Log Item, by gathering requirements (inputs) from customer and stake holders including of features and user stories. From this list development team starts sprint by priority of the items.

**9)** **What are user story/feature/sprint back log items and tasks in user story?**

**Feature:** It is a service provided by the system, which meet stake holder requirements, and delivered in single sprint. Every Feature includes a statement of benefits and acceptance criteria.

**User story:**

* Description of requirements from user point of view.
* It captures something valuable in a couple of sentences.

**10) What is sprint planning meeting?**

Every sprint start with sprint plan meeting conducted by Scrum Master with Development team and product owner. In this they select high priority items (Sprint Backlog) from Product back log to work on Sprint duration.

**11) What is sprint review meeting?**

Sprint Review which gives a chance for development team to demonstrate new functionalities from Stake Holders.

**12) What is sprint retrospective?**

It is a examination of what went good, what went bad and what could be improved. The aim of this is the next Sprint will be more efficient and effective then the last.

**13) What is sprint grooming?**

Keeping the product backlog well maintained.

**14) What is burn down chart and velocity?**

**Burn down chart:** It is a tool; it helps the team to track the remaining work in Sprint. It Provide a quick and easy way for employees to know how much work still remains in the sprint that helps them to finish with in time duration.

**Velocity:** velocity in scrum is the amount of work that produces by team from sprint to sprint over time.

**15) What is a user acceptance criteria test case?**

User Acceptance is process of verifying that the solution work for user, it is different than system testing. It ensures that the solution will work for users. It should be under taken by SME. It also provides a summary of the findings for confirmation to proceed after trial or review. It is a final stage of the project. It occurs before a client or customer accepts the new system. User performs this in line what would occur in real life scenario.

**16)** What is v model?

* V- model means Verification and Validation model. Just like the [waterfall model](http://istqbexamcertification.com/what-is-waterfall-model-advantages-disadvantages-and-when-to-use-it/),
* the V-Shaped life cycle is a sequential path of execution of processes. Each phase must be completed before the next phase begins.
* Testing of the product is planned in parallel with a corresponding phase of development in V-model.

**17) What is STLC?**

Software Testing Life Cycle is a testing process which is executed in a sequence, to meet the quality goals. It is not a single activity but it consists of many different activities which are executed to achieve a good quality product. There are different phases in STLC which are given below:

1. Requirement analysis
2. Test Planning
3. Test case development
4. Environment Setup
5. Test Execution
6. Test Cycle Closure

**18)** What is defect?

Deviation between expected results to actual result identified while testing.

**19) How to arise a defect and what we specify while logging defect?**

Defect logging, a process of finding defects in the application under test or product by testing or recording feedback from customers and making new versions of the product that fix the defects or the clients feedback.

* Defect Id
* Defect Description
* Priority
* Severity
* Created by
* Created Date
* Assigned to
* Resolved Date
* Resolved By
* Status

**20) Defect lifecycle**

Defect life cycle, also known as Bug Life cycle is the journey of a defect, which a defect goes through during its lifetime. It varies from organization to organization and also from project to project as it is governed by the software testing process and also depends upon the tools used.

**21) What is unit testing?**

It is also called Component testing. It is performed on standalone module to check whether it is developed correctly or not.

Here Testers are Developers

**22) What is UAT?**

User Acceptance is process of verifying that the solution work for user, it is different than system testing. It ensures that the solution will work for users. It should be under taken by SME. It also provides a summary of the findings for confirmation to proceed after trial or review. It is a final stage of the project. It occurs before a client or customer accepts the new system. User performs this in line what would occur in real life scenario

**23) What is alpha and beta testing?**

**Alpha:** Alpha testing is testing by potential user or an independent test team at the developer’s site. It is a form of internal acceptance testing.

**Beta:** Beta testing is testing by potential user/client on their location under real world working conditions. In this case customer install software if needed, use it report defects that were find. It is a form of external acceptance testing.

**24) When do we use regression testing?**

It is a repeated testing of an already tested program, after modification, to discover any defects introduced or uncovered as a result of the changes in the software being tested.

We do Regression testing whenever the production code is modified. Particularly in below cases:

i) When new functionalities are added to the application

ii) When there is a change requirement

iii) When there is a defect fix

iv) When there is a performance issue fix

v) When there is an Environment change

**25) What is integration testing?**

In this phase of testing, individual modules are combined and tested as a group. Data transfer between the modules is tested thoroughly. Integration testing is carried out by testers.

Here we use Different type approaches to perform Integration testing by using “Stub”:

i) Top to down approach

ii) Bottom to up approach

iii) Hybrid approach |(Big Bang)

**26) When do we use integration testing?**

We do integration testing because a set of modules that work fine individually rarely works together correctly the first time. There are a variety of reasons: Differences in the understanding of business requirements between multiple developers cause them to assume different things should happen for the same **test** cases.

**27) When do we use white box testing and block box testing?**

**Block box:** This method in which testers evaluate the functionality of the software under test without looking at the internal code structure. This method can apply every level of testing such as Unit, integration, system and acceptance testing.

**White Box:** This method is based on applications internal code structure. In white box testing an internal perspective of the system, as well as programming skills, are used to design test cases. This testing usually done at unit level.

**28) Whe n do we use smoke testing and sanity testing?**

**Smoke Test:**  It is done to make sure if the build we received from development team is testable or not. It is done at “Build Level”.

**Sanity Testing**: It is done during the Release phase to check the main functionalities of the Application Without going deeper. It is done at the “Release Level”.

**29) What we will do if we don't have a time to test all stories/ execute test cases?**

When we don’t have time to test al test cases, at least try to:

i) Execute important test case which covers main functionalities.

ii) Execute test cases priority wise.

**30) What we will do if come across any critical severity issue before release day?**

We have to measure the severity and frequency of that defect. If it has high severity and low frequency of occurrence then we can make the bug as known issues and move it to maintenance phase.

If it is having high severity and high occurrence then we have to fix the bug immediately and test.

**31) When do we use automation testing?**

Consider a scenario where the defect is fixed in the build and similar feature was used in different working modules. So it is hard to check new bug is introduced in previous working functionality. While doing test pass you need to check regression testing around the defect fixes. This testing exercise needs to be executed each and every time you need to manually test the functionality around the impacted area. So considering resources, time and money you need to work effectively and smartly. In such scenarios you need to think of Automation testing

**32) What tester will do in each phase of SDLC?**

* Requirement stage - PM,Tech.Lead, Test lead will review the document
* Design Stage - PM or Test lease will review the document
* coding Stage – Test lead will prepare Test plan, Tester will prepare test cases
* Testing Stage - Tester will execute the test case

**33) Difference between load and performance testing?**

**Load testing** generally refers to the practice of modelling the expected usage of a software program by simulating multiple users accessing the program concurrently.

**Performance testing** is the process of determining the speed or effectiveness of a computer, network, software program or device.

**34) Different types of non-functional testing types?**

We have mainly 2 types of Non-functional testing:

**a) Performance Testing**

* Load testing
* Endurance Testing
* Spike testing.
* Stress testing.

**b) Usability Testing**

**c) Configuration**

**d) Recovery testing**

**e) Reliability Testing**

**f) Localization/Globalization**

**g) Installation testing**

**35) What is test case?**

A Test Case is a set of actions executed to verify a particular feature or functionality of your software application. This tutorial describes test case designing and the importance of its various components

**36) What is test planning/test strategy document?**

A Test Strategy document is a high level document and normally developed by project manager. This document defines “Software Testing Approach” to achieve testing objectives. The Test Strategy is normally derived from the Business Requirement Specification document.

**37) What are Exit and Entry criteria?**

**Entry:** The prerequisites that must be achieved before commencing the testing process.

**Exit:** The conditions that must be met before testing should be concluded.

**38) What is TDD and BDD (cucumber framework)?**

**TDD(Test-driven development):**

* Test cases written by the developers
* Written to test each unit of code(Unit test)
* Design level scenario

### BDD([Behaviour Driven Development](https://blog.rapid7.com/2017/06/19/what-is-bdd-testing-practical-examples-of-behavior-driven-development-testing/)):

* Test cases written by stakeholders or Non-technical Persons.
* Design high level scenario to test expectation from software
* Designed for Acceptance testing.

**39) What is priority and severity in defect?**

**Severity**: Is the seriousness/Impact of the bug or defect regards to the system, user and the business.

**Priority:** It tells the importance of the defect to be fixed from the business prospective.

**40)** What are the tools to manage defects/stories?

JIRA

Salce Force

Backlog

TFS

Mantis

Redmine

Trac

HP ALM/Quality Centre

**41) What is requirement traceability matrix?**

RTM traces the requirements to the test cases that are needed to verify whether the requirements are fulfilled