1. **Why testing required?**

In general, it is very important to ensure the Quality of the product. Quality product delivered to the customers helps in gaining their confidence. When it comes to Testing Software is necessary because as if we are humans we all make mistakes. Some of those mistakes are unimportant, but some of them are expensive or dangerous. We need to check everything and anything we produce because things can always go wrong

1. **What types of application we test**

In today’s world we’ve number of options evolved in testing any required application. With this options we can test the any type of applications like windows application, mobile application, web services, web based application on any required platform we can test it.

1. **What is SDLC and different phases in SDLC?**

After coding and development the testing verifies the deliverable of the implementation phase against requirements. The testing team follows Software Testing Life Cycle (STLC) which is similar to the development cycle followed by the development team.

There are following six phases in every Software development life cycle model:

1) Requirement gathering and analysis, 2) Design 3) Implementation or coding, 4) Testing 5) Deployment 6) Maintenance

**4. What is waterfall method?**

The waterfall model is a sequential (non-iterative) design process, used in software development processes, in which progress is seen as flowing steadily downwards (like a waterfall) through the phases of conception, initiation, analysis, design, construction, testing, production/implementation and maintenance.

1. **What is agile method?**

Agile is one of the big buzzwords of the IT development industry. Agilists propose alternatives to waterfall, or traditional sequential development. Agile is a time boxed, iterative approach to software delivery that builds software incrementally from the start of the project, instead of trying to deliver it all at once near the end. It works by breaking projects down into little bits of user functionality called user stories, prioritizing them, and then continuously delivering them in short two week cycles called iterations.

1. **What is scrum methodology**

Scrum is an Agile framework for completing complex projects. Scrum originally was formalized for software development projects, but it works well for any complex, innovative scope of work. The possibilities are endless.

1. **What is the process in agile model**

Agile Methods break the product into small incremental builds. These builds are provided in iterations. Each iteration typically lasts from about one to three weeks. Every iteration involves cross functional teams working simultaneously on various areas like planning, requirements analysis, design, coding, unit testing, and acceptance testing. At the end of the iteration a working product is displayed to the customer and important stakeholders.

1. **What is daily standup meeting and what we discuss**

A daily stand-up meeting is a short organizational meeting that is held each day. The meeting generally limited to between five and fifteen minutes long, is sometimes referred to as a stand-up, a morning roll-call or a daily scrum. The purpose of the meeting is for each team member to answer the following three questions:

1) What did you do yesterday?

2) What will you do today?

3) Are there any impediments in your way?

**9. What is product back log items?**

In Scrum, a product backlog item ("PBI", "backlog item", or "item") is a unit of work small enough to be completed by a team in one Sprint of iteration.

**10. What is user story/feature/sprint back log items and tasks in user story**

A user story is a tool used in Agile software development to capture a description of a software feature from an end-user perspective. The user story describes the type of user, what they want and why. A user story helps to create a simplified description of a requirement.

**11. What is sprint planning meeting what is sprint review meeting**

In Scrum, the sprint planning meeting is attended by the product owner, ScrumMaster and the entire Scrum team. Outside stakeholders may attend by invitation of the team, although this is rare in most companies. During the sprint planning meeting, the product owner describes the highest priority features to the team.

**Sprint review meeting:** In Scrum, each sprint is required to deliver a potentially shippable product increment. This means that at the end of each sprint, the team has produced a coded, tested and usable piece of software. So at the end of each sprint, a sprint review meeting is held.

**12. What is sprint retrospective?**

The sprint retrospective is a meeting facilitated by the ScrumMaster at which the team discusses the just-concluded sprint and determines what could be changed that might make the next sprint more productive.

**13. What is sprint grooming?**

Product backlog refinement—sometimes called product backlog grooming in reference to keeping the backlog clean and orderly—is a meeting that is held near the end of one sprint to ensure the backlog is ready for the next sprint.

**14. What is burndown chart and velocity?**

This chart provides an actual forecast for all the work to be completed, plotting progress over time. The rate of progress of a Scrum Team is called "velocity". It expresses the amount of e.g. story points completed per iteration.

**15. What is user acceptance criteria test cases?**

User acceptance is a type of testing performed by the Client to certify the system with respect to the requirements that was agreed upon. This testing happens in the final phase of testing before moving the software application to Market or Production environment.

**16. What is v model?**

The V - model is SDLC model where execution of processes happens in a sequential manner in V-shape. It is also known as Verification and Validation model. V - Model is an extension of the waterfall model and is based on association of a testing phase for each corresponding development stage.

**17. What is STLC?**

Software Testing Life Cycle (STLC) is defined as a sequence of activities conducted to perform Software Testing. It consists of series of activities carried out methodologically to help certify your software product.

SDLC- process developing software, STLC- Process of testing softaware

**18. What is defect?**

A defect is an error or a bug, in the application which is created. A programmer while designing and building the software can make mistakes or error. These mistakes or errors mean that there are flaws in the software. These are called defects.

**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.

**20. Defect lifecycle?**

Defect life cycle is a cycle which a defect goes through during its lifetime. It starts when defect is found and ends when a defect is closed, after ensuring it’s not reproduced. Defect life cycle is related to the bug found during testing.

**21. What is unit testing?**

Unit testing is a software development process in which the smallest testable parts of an application, called units, are individually and independently scrutinized for proper operation. Unit testing can be done manually but is often automated.

**22. When do we use regression testing?**

Regression testing is the process of testing changes to computer programs to make sure that the older programming still works with the new changes. Regression testing is a normal part of the program development process and, in larger companies, is done by code testing specialists.

**23. What is integration testing?**

Integration testing (sometimes called integration and testing, abbreviated I&T) is the phase in software testing in which individual software modules are combined and tested as a group. It occurs after unit testing and before validation testing.

**24. When do we use integration testing?**

Integration testing can expose problems with the interfaces among program components before trouble occurs in real-world program execution.

**25. When do we use smoke testing and sanity testing?**

In Smoke Testing, the test cases chosen cover the most important functionality or component of the system. The objective is not to perform exhaustive testing, but to verify that the critical functionalities of the system is working fine. For Example a typical smoke test would be - Verify that the application launches successfully, Check that the GUI is responsive ... etc.

In sanity Testing, the goal is to determine that the proposed functionality works roughly as expected. If sanity test fails, the build is rejected to save the time and costs involved in a more rigorous testing.

The objective is "not" to verify thoroughly the new functionality, but to determine that the developer has applied some rationality (sanity) while producing the software. For instance, if your scientific calculator gives the result of 2 + 2 =5! Then, there is no point testing the advanced functionalities like sin 30 + cos 50.

**What is unit testing?**

**Repeated**

**27. What is UAT?**

User acceptance testing (UAT) is the last phase of the software testing process. During UAT, actual software users test the software to make sure it can handle required tasks in real-world scenarios, according to specifications.

**28. What is alpha and beta testing?**

**Alpha testing** is a type of acceptance testing; performed to identify all possible issues/bugs before releasing the product to everyday users or public. Alpha testing is carried out in a lab environment and usually the testers are internal employees of the organization.

**Beta testing** is also sometimes referred to as user acceptance testing (UAT) or end user testing. In this phase of software development, applications are subjected to real world testing by the intended audience for the software. The experiences of the early users are forwarded back to the developers who make final changes before releasing the software commercially.

**29. When do we use white box testing and block box testing?**

**Black-box testing** (also known as functional testing) treats software under test as a black-box without knowing its internals. Tests are using software interfaces and trying to ensure that they work as expected. As long as functionality of interfaces remains unchanged, tests should pass even if internals are changed.

**White-box testing** (also known as clear box testing, glass box testing, transparent box testing, and structural testing) looks inside the software that is being tested and uses that knowledge as part of the testing process. If, for example, exception is thrown under certain conditions, test might want to reproduce those conditions. White-box testing requires internal knowledge of the system and programming skills. It provides internal perspective of the software under test.

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

When we don’t have sufficient time to test all test cases, we try to do **SMOKE TESTING**, where we check only the major functionality of the software.

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

Obviously, we don't live in a perfect world and it's possible that no action may be taken to resolve the defect before release. It's entirely possible that it makes more sense to go live with a bug and then release a quick fix, than to decide not to release at all.

Given the short timescales, you ensure that everyone who needs to know about it knows about it, so they have the information they need to determine -their- best course of action as soon as possible.

**32. When do we use automation testing?**

Test engineers strive to catch them before the product is released but they always creep in and they often reappear, even with the best manual testing processes. Test Automation software is the best way to increase the effectiveness, efficiency and coverage of your software testing.

**33. What tester will do in each phase of SDLC?**  
The basic job of software testing is to identify errors in order to reveal and spot it. The extent of software testing consists of implementation of that code in different domain and also to look at the features of the code does the software do what it is should be done and methods respect to the condition.

**Role of Testing in SDLC**

Inception Phase: In this phase, a test engineer will get an opportunity to indentify the necessities of project.

Elaboration Phase: In this phase, a test engineer will get an opportunity to indentify how the project is planned.

Construction Phase: In this phase, programmers play an important role of building the application depends on the plan acknowledged during the JAD stage. Here tester group have to follow the programming group to identify several adjustments taken by the system.

Transition Phase: In this phase if any fault or errors are originate then these are test again and it goes though the regression testing.

**34. Difference between load and performance testing?**

In simple terms, Performance Testing , how fast is the system? Load Testing = how much volume can the system process?

When the load placed on the system is raised beyond normal usage patterns, in order to test the system’s response at unusually high or peak loads, it is known as stress testing.

When comes to performance testing, A web developer can test the speed at which a page renders in a browser, and that is testing performance. Yet, that test would have nothing to do with load.

**35. Different types of non-functional testing types?**

Non-functional testing is concerned with the non-functional requirements and is designed specifically to evaluate the readiness of a system according to the various criteria which are not covered by functional testing.

Ex: Load/Performance testing, Compatibility testing, Localization testing, security testing, Reliability testing, Stress testing.

**36. What is test case?**

A test case is a document, which has a set of test data, preconditions, expected results and post conditions, developed for a particular test scenario in order to verify compliance against a specific requirement.

**37. What is test planning/test strategy document**

Test strategy is a plan for defining the testing approach, and it answers to questions like what you want to get done and how you are going to accomplish it. It is most important document for any QA team in software testing, and effectively writing this document is a skill that every tester develops with experience.

**38. What is Exit and Entry criteria?**

**Entry criteria** is used to determine when a given test activity should start. It also includes the beginning of a level of testing, when test design or when test execution is ready to start.

**Exit criteria** are the criteria or requirements which must be met to complete a specific task or process as used in some fields of business or science, such as software engineering.

**39. What is TDD and BDD (cucumber framework)**

**Behavior-driven development (BDD)** is a software development methodology in which an application is specified and designed by describing how its behavior should appear to an outside observer.

**Test-driven development (TDD**) is a software development process that relies on the repetition of a very short development cycle: requirements are turned into very specific test cases, then the software is improved to pass the new tests, only.

**41. What is priority and severity in defect?**

The **priority** status is set based on the customer requirements. While **Severity** is the extent to which the defect can affect the software. In other words it defines the impact that a given defect has on the system. It is totally related to the quality standard or devotion to standard.

**42. How to estimate test cases?**

Test estimation is a management activity which approximates**how long** a Task would take to complete. Estimating effort for the test is one of the **major** and **important** tasks in Test Management.

Things to estimate:

* **Resources:**Resources are required to **carry out** any project tasks. They can be people, equipment, facilities, funding, or anything else capable of definition required for the completion of a project activity.
* **Times :**Time is the most valuable resource in a project. Every project has a  deadline to delivery.
* **Human Skills :**Human skills mean the **knowledge** and the **experience** of the Team members. They affect to your estimation. For example, a team, whose members have low testing skills, will take more time to finish the project than the one which has high testing skills.
* **Cost:**Cost is the project **budget**. Generally speaking, it means **how much** **money** it takes to finish the project.

**43. What is most challenge defect u came across?**

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**44. what are test design techniques**

Test Design is creating a set of inputs for given software that will provide a set of expected outputs. Broadly speaking there are two main categories of Test Design Techniques.

Following are the typical design techniques in software engineering:

I) deriving test cases directly from a requirement specification or black box test design technique. The Techniques include:

Boundary Value Analysis (BVA)

Equivalence Partitioning (EP)

Decision Table Testing State

Transition Diagrams

Use Case Testing

**45. If we dont have time to test call test cases what we will do**

**repeated**

**49. What is requirement traceability matrix?**

The Requirements Traceability Matrix (RTM) is a document that links requirements throughout the validation process. The purpose of the Requirements Traceability Matrix is to ensure that all requirements defined for a system are tested in the test protocols.

**50. What are typical environments we have in projects?**

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**51. What are different defect metrics and measurements we prepare in testing?**

In software testing, Metric is a quantitative measure of the degree to which a system, system component, or process possesses a given attribute.

Software testing metrics or software test measurement is the quantitative indication of extent, capacity, dimension, amount or size of some attribute of a process or product.

Example for software test measurement: Total number of defects

**52. What is development environment?**

The development environment is the set of processes and programming tools used to create the program or software product. The term may sometimes also imply the physical environment.

**53. What is QA ENVIRONMENT?**

A QA environment is where you test your upgrade procedure against data, hardware, and software that closely simulate the Production environment and where you allow intended users to test the resulting Waveset application. A Production environment is where the Waveset application is actually available for business use.

**54. What is staging environment**

A stage or staging environment is an environment for testing that exactly resembles the production environment. In other words, it's a complete but independent copy of the production environment, including the database. Staging provides a true basis for QA testing because it precisely reproduces what is in production.

**55. What is production environment?**

A Production environment is where the Waveset application is actually available for business use.

**56. How to deal the production defects?**

We need to check 1st whether it was within our testing scope or not. If Yes then we have to do a RCA ( Root Cause Analysis). RCA report must be delivered to all the stake holders.Once you are known to the exact issue then you need to inform your project manager or QA manager. The report part should include the exact impact of the bug found; also you should be ready with the proper explanation for the same. Sometime it happens that the scenario in which the bug invokes is rare so, such kind of analysis data will help you decide the release time of the fix.