1).Why testing is required?

Ans: Testing is required to identify, isolate and rectify the defects in a product being developed or produced. Testing should be done in order to ensure that the product is defect free and to check whether the product meets the quality set by the end user. It is essential to obtain end users satisfaction by producing a quality product.

2) What types of application we test

Ans: Mainly we test three kinds of applications

1. Web Applications, 2) GUI Applications (Graphical User Interface Applications)

3) Mobile Application (IOS and Android)

3)what is SDLC and different phases in SDLC?

Ans: Software development life cycle (SDLC) is a framework defining the tasks performed at each steps in a software development process.

**Different phases in SDLC:**

1. **Requirement Analysis and planning:** Senior team members analyze the requirements/input given by customer’s/business users. They will check whether the requirement is feasible or not (can be done or not). They also identify the risks associated with project.

Note: This is high level requirement & will be written in **BRD (Business Requirement document)** by Business Analyst

1. **Defining Requirements**: In this stage, Business Analyst define more details about requirements (which are in BRD) in the form of **SRS (software requirement specification)** or Use Case diagram.

As part of design,

1. Senior Developers write **High Level Design Document (HLD)**
2. Developers write **Low Level Design Document (LLD)**
3. Seniors Tester Writes **Test Planning document (TPD)**
4. **Designing The Product Architecture:**  Based on the SRS provided from the previous step, the architects come out with the best architecture for the product to be developed. Based on the requirements specified in SRS, usually more than one design approach for the product architecture is proposed and documented in a DDS- Design Document Specification.

After reviewing the DDS, the best design approach is selected for product development by important stakeholders and higher level management considering different parameters such as risk assessment and product robustness.

1. **Building and Developing the Product:** In this stage of SDLC, the actual development of the product is done. The programming code is generated as per DDS during this stage.
2. **Testing The Product:** Usually, Testing is done in all stage of SDLC. However, this stage refers to the testing only stage of the product where product defects are reported, tracked, fixed and retested until the product reaches the quality standards defined in SRS.
3. **Deployment in Market and Maintenance:** Once the product is ready and to be deployed, it is formally released in the appropriate market. The product may be released in a limited segment and tested in the real business environment (UAT- User Acceptance Testing).

4). what is waterfall Model in SDLC?

Ans: Waterfall Model was the first SDLC model to be used in software in Software Engineering to ensure the success of the project. In Waterfall model, the whole process of software development is divided into separate phases. In this model, the outcome of one phase acts as the input for the next phase sequentially.

All the phases are cascaded to each other in which progress is seen as flowing steadily downward (like a waterfall) through the phases. The next phase is stared only after the defined set of goals are achieved for previous phase and it is signed off, so the name “Waterfall Model”. In this model, phases do not overlap.

The main disadvantage of this model is that, it does not allow for much reflection or revision. Once an application is in testing stage, it is very difficult to go back and change something that was not well documented or thought upon in the concept stage.

5). What is Agile method?

Ans: 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.

6). what is scrum methodology?

Ans: Scrum is an agile way to manage a project, usually software development. Agile software development with Scrum is often perceived as a methodology.

Scrum relies on a self-organizing, cross-functional team. The scrum team is self-organizing in that there is no overall team leader who decides which person will do which task or how a problem will be solved. Those are issues that are decided by the team as a whole.

7). what is the process in **Agile** model?

Ans: Agile SDLC model is a combination of iterative and incremental process models with focus on process adaptability and customer satisfaction by rapid delivery of working software product.

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.

8).what is daily standup meeting and what we discuss?

Ans: 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.

9). what is product backlog item?

Ans:  product backlog item ("PBI", "backlog item", or "item") is a unit of work small enough to be completed by a team in one Sprint iteration. Backlog items are decomposed into one or more tasks.

10). what is user story/feature/sprint back log items and tasks in user story?

Ans: a user story is a description consisting of one or more sentences in the everyday or business language of the end user or user of a system that captures what a user does or needs to do as part of his or her job function.

The sprint backlog is a list of tasks identified by the Scrum team to be completed during the Scrum sprint. During the sprint planning meeting, the team selects some number of product backlog items, usually in the form of user stories, and identifies the tasks necessary to complete each user story.

Sprint backlog cannot function without tasks! Usually a task falls under a user story.

11). what is sprint planning meeting?

Ans: In Scrum, every iteration begins with a sprint planning meeting. At this meeting, the Product Owner and the team negotiate which stories a team will tackle that sprint. This meeting is a time-boxed *conversation* between the Product Owner and the team. It’s up to the Product Owner to decide which stories are of the highest priority to the release and which will generate the highest business value, but the team has the power to push back and voice concerns or impediments.

12). What is sprint review meeting, sprint retrospective, sprint grooming?

Ans:  During the **sprint review**, the project is assessed against the sprint goal determined during the sprint planning meeting.

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

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.

13). what is burndown chart and velocity?

Ans: The Scrum Burndown Chart is a visual measurement tool that shows the completed work per day against the projected rate of completion for the current project release. Its purpose is to enable that the project is on the track to deliver the expected solution within the desired schedule.

The rate of progress of scrum team is velocity.

14). what is user acceptance criteria test cases?

Ans: Firstly, the criteria by which the software is considered to be “working” needs to be assembled. These are likely to be collated from the system requirements, and user stories. Next, a set of UAT (user acceptance testing) test cases must be created.

15). what is v model?

Ans: 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. This is a highly disciplined model and next phase starts only after completion of the previous phase.

16). What is STLC?

Ans: Software testing life cycle(STLC) is the testing process which is executed in systematic and planned manner. In STLC process, different activities are carried out to improve the quality of product.

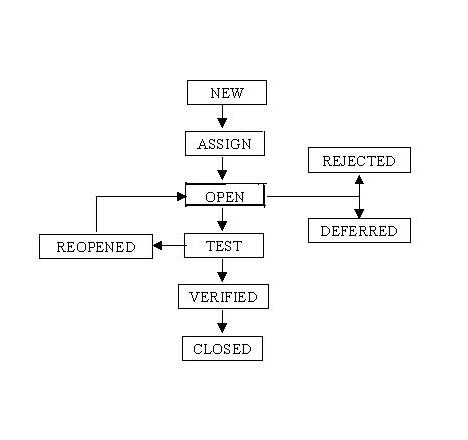
Following steps are involved in STLC.

* Requirement Analysis
* Test Planning
* Test Case Development
* Environment Setup
* Test Execution
* Test Cycle Closure

17). What is defect life cycle?

Ans: 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.

The bug has different states in the Life Cycle. The Life cycle of the bug can be shown diagrammatically as follows:



18).What is unit testing?

Ans**:** unit testing is a software testing method by which individual units of [source code](https://en.wikipedia.org/wiki/Source_code), sets of one or more computer program modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use.

19). when do we use regression testing?

Ans: when the tester come's to conformation that the bug is fixed, then he starts Regression testing on that modified build. in this testing, the tester test's or checks whether the modified build is showing any impact on other application or not.. means whether new application or functionality is effecting other application or not.the tester checks after fixation of bug, we got any side effects in application or not... why because , during the bug fixing some parts of coding may be changed or functionality mat be manipulated.. in this case the old test cases will up-dated or completely re-written according to new feature of application where bug fixed area.

20). what is integration testing and when do we use it?

Ans: integration testing is nothing but to Integrate/combine the unit tested module one by one and test the behavior as a combined unit.

The main function or goal of Integration testing is to test the interfaces between the units/modules.

We normally do Integration testing after “Unit testing”.

Once all the individual units are created and tested, we start combining those “Unit Tested” modules and start doing the integrated testing. So the meaning of Integration testing is quite straight forward- Integrate/combine the unit tested module one by one and test the behavior as a combined unit.

21). when do we use smoke testing and sanity testing?

Ans: Smoke Testing: Software Testing done to ensure that whether the build can be accepted for through software testing or not. Basically, it is done to check the stability of build received for software testing.  
Sanity testing: After receiving a build with minor changes in the code or functionality, a subset of regression test cases are executed that to check whether it rectified the software bugs or issues and no other software bug is introduced by the changes. Sometimes, when multiple cycles of regression testing are executed, sanity testing of the software can be done at later cycles after through regression test cycles. If we are moving a build from staging / testing server to production server, sanity testing of the software application can be done to check that whether the build is sane enough to move to further at production server or not

22). what is UAT?

Ans: UTA means user acceptance testing. The last phase of the software testing process is known as UTA. During UAT, users test the software to make sure that it can handle required tasks in real-world scenarios, according to specifications.

UAT is also known as beta testing, application testing or end user testing.

23). what is alpha and beta testing?

Ans: Alpha Testing and Beta Testing are the common terms used in software industries and both have their scope and significance in testing practice.

Alpha Testing is a type of testing conducted by a team of highly skilled testers at development site whereas Beta Testing is done by customers or end users at their own site.

Alpha Testing is done for software application, project and product whereas Beta Testing is usually done for software product like operating system, write or paint utilities, games etc.

Both alpha and Beta Testing are the kind of acceptance testing, only difference is former is conducted within organization whereas latter in conducted out of organization.

24). when do we use white box testing and black box testing?

Ans: White box testing is nothing but thereafter developers will complete the coding part of the one function then they will do unit testing on that function whether it's meeting the requirement or not and also after completing all the coding part of the API. then they will integrate all the coding part and do the Integration testing---these all comes under Whit box testing we can all so call as Glass box testing or structural testing...  
But commonly the developers will do white box design.  
But we never say we will not perform this we can, sometimes If developers are too busy then we can also do Unit testing, Integration testing.

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

25). what we will do if come across any critical severity issue before release day?

Ans: One thing we have to do is measure the severity and frequency of that defect.  
If it is having High Severity and low frequency of occurrence then we can make the bug as known issue and move it to maintenance phase.  
If it is having high severity and high occurs then we have to fix the bug immediately and test.

26). when do we use automation testing?

Ans: Manually repeating these tests is costly and time consuming. Once created, automated tests can be run over and over again at no additional cost and they are much faster than manual tests. Automated software testing can reduce the time to run repetitive tests from days to hours.

27) what tester will do in each phase of SDLC?

Ans:

* Tester prepares the Test cases, Test Scenarios from the SRS.
* Using the script the tester performs different kinds of testing (Regression, Function).
* Tester Notes the results(pass/Fail).
* If Result=Fail then the scenario is raised in the Test director.
* Once its fixed by the developer the tester performs a regression testing.

28). difference between load and performance testing?

Ans: Load testing: any test that involves to put a determined load on an application to verify how it behaves (i.e.: response time).

Performance testing: it is a load test limited by the load defined by the specification of the application - the test is to verify or confirm that the application will work at the planned performance.

29). different types of non-functional testing types?

Ans: Security testing, Reliability testing, Stress testing, Load/Performance testing,

Compatibility testing, Compliance testing.

30). what is test case?

Ans: A test case, in software engineering, is a set of conditions under which a tester will determine whether an application, software system or one of its features is working as it was originally established for it to do.

Test cases are often referred to as test scripts, particularly when written - when they are usually collected into test suites.

31). what is test planning/test strategy document.

Ans: Test planning: 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.

Test planning: It is document which is prepared by TL. Here he do job allocation in terms of what to test, how to test, who will test n when to test.

32). what is Exit and Entry criteria?

Ans:

Exit criteria:

1)No defect over a period of time or testing effort

2)Planned deliverable is ready

3)High severity defects are fixed

Entry criteria:

1)All source codes are unit tested

2)All QA resource has enough functional knowledge

3)H/W and s/w are in place

4)Test plans and test cases are reviewed and signed off.

33) what is TDD and BDD (cucumber framework).

Ans:

TDD: Test driven development, is a method of software development in which unit testing is repeatedly done on source code. Write your tests watch it fails and then refactor it. The concept is we write these tests to check if the code we wrote works fine.

BDD: Behavior driven development combines the general techniques and principles of TDD with ideas from domain-driven design.

34). what is priority and severity in defect?

Ans: Priority defines the order in which we should resolve a defect. priority status is set by the tester to the developer mentioning the time frame to fix the defect. The priority status is set based on the customer requirements.

severity defines the impact that a given defect has on the system. If an application or web page crashes when a remote link is clicked, in this case clicking the remote link by an user is rare but the impact of application crashing is severe. So the severity is high but priority is low.

35). how to estimate test cases?

Ans: List of Software Test Estimation Techniques.

* 3-Point Software Testing Estimation Technique.
* Use – Case Point Method:
* Work Breakdown Structure.
* Wideband Delphi technique.
* Function Point/Testing Point Analysis.
* Percentage of development effort method.
* Percentage distribution.
* Best Guess.

36). what is most challenge defect u came across?

Ans:

37). what are test design techniques?

Ans: 1. Static Techniques

2.Dynamic Techniques

38). what are the tools to manage defects/stories?

Ans: Defect Management has 5 steps-

1) Defect Prevention

2) Deliverable baseline

3) Defect Discovery

4) Defect resolution

5) Process Improvement.

39). who will assign the work?

Ans: As per my knowledge, most of the time work is assigned by the Manager, in some case Team lead assigns the work.

40). what is requirement traceability matrix?

Ans: 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.