Questions:

1. What is SDLC?
   - Systematic procedure followed in order to create a software
     (OR) It is a process used by the software industry to design,develop and test high quality software (OR) It consist of detailed plan describing how to develop,maintain,replace and alter or enhance specific software.
   - Different stages in SDLC
   - Different types of models
   - Explains each model in detail
2. What are the Advantages,Disadvantage &application of each model?
3. What are different models available in market?
   Waterfall model
   Spiral model
   V-model
   Prototype model
   Agile model/Agile methodology
   Derived model
   Hybrid model
   RAD (Rapid Application Development)
   Rapid unified process(RUP)
4. In your current project which model you followed?
   Explain either V-Prototyte or agile
   While explaining use I,AM,OUR
5. What is software Testing?
   - The process of finding defects in the software is called software testing OR
   - Verifying the functionality(behaviour) of application againt the requirement specification is called software testing OR
   - check whether the feature works/behaviour according to the requirement

   Why we do Software testing?

   - Every software is developed to support the business if there is a bug in the software it affects the business.so, before we launch the software it should be tested and all bug should be recognised.
6. What are the characterstic of good testing engi?
   - Test engi must have “TEST to BREAK’ attitude

- Test engi should see the product from
    - Business point of view
    - End user point of view
    - Customer point of view
    - Developer point of view
- Test engi should have very good knowledge of domain
- Test eng should have very good knowledge of technology also

7. What is diff b/w WBT and BBT?

What is WBT	WHAT is BBT
Testing each and every line of code is called WBT	Verify functionality of application against requirement specification
It is generally done by developers and rarely done by test engineers if they are good in Programming	Done by test engi
To do WBT developer must have very good knowledge of programming	To do this, one who don't have the knowledge of programming
Should have knowledge of internal design of source code	No need to have knowledge of design of code

8. Diff b/w static and Dynamic testing

It is a kind of Verification Process	It is a kind of validation process
To do this we need not to execute the program	To do this we have to execute program
It involves different Activities like Requirement review,design review ,test plan review i.e., it involves actual review process	It involves different types of testing like Functional testing,Integration testing,System testing,smoke testing,Adhoc testing,performance testing,usability testing
We do this to prevent the defect	We do this to find or detect the defect
It involves to many meeting to review	It involves very less meeting
To do this we have checklist	To do this we should have test case

9. Diff B/W verification and validation?

It involves Review,Walkthrough inspection	It involves actual Testing
EG: Requirement review,design review,code review,test plan review and Test case review	EX: Functional,integration, System,regression,adhoc,…..
Here we check are we building Product right	Here we check are we building right product
Procedure & scenerios are tested	Check whether features are according to requirement

10. Diff B/w QA and QC

QA:

- It is process oriented
- It involves the different stages like
    - Identify the need for process
    - Define/Design the process
    - Make sure that people are implementing the process
    - Find the mistake in the process
    - Improve the process

QC:

- It is product Oriented
- QC is actual testing
- Here we check whether the product works according to requirement or not

11. Diff B/W Functional testing and Non functional testing?

Functional:

- Here we check whether the product works according to the functional requirement specification.
- Here we check whether features works or not,functionality works or not
- It involves diff testing like Functional,integration,system,smoke,adhoc,acceptance testing

Non Functional:

- Here we check whether the product works according to the non functional requirement specification
- Here we check whether features looks good or not,performance is good or not ,user friendly or not
- It involves diff types of testing like usability,accessability,Perfofmance testing(load,stress,volume,soak)

12. WBT?
    - Tell WHAT
    - Testing each and every line of code is called WBT
    - It is generally done by developers and rarely done by test engineers if they are good in Programming
    - To do WBT developer must have very good knowledge of programming
    - Should have knowledge of internal design of source code
    - Tell types of WBT explain each in one line
13. What is gray box ?
    - Refer notes
14. BBT?
    - Verifying the functionality of application against the requirement specification is called BBT.
    - Tell different types of BBT
    - Explain each type in 2 line (make it simple)
15. What is functional testing?
    - Testing each and every component thoroughly against requirement specification is called functional testing
    - Testing each and every component thoroughly is called component testing
    - Identified components like Links,text field,drop down,button. (prepare 1 example)
16. What is integration testing?
    - Testing data flow /Interface between the modules is called integration testing

- Testing each and every component is not enough,we have to check the data flow between the modules, then this kind of testing is called integration testing

17. What are types of integration Testing?
    - Tell types
    - Explain each type in 2 lines
18. What is stub and drivers?
    - Stub is a dummy module which behaves like module which is already build,it can generate data or it can receive the data
    - Driver is one which setup some that test environment and does the transaction analyses the result send the report
19. What is system testing?
    - It is end to end testing where test environment is just similar to production environment
    - Navigate through all features and test the end product/business scenario works or not is called end – to – end testing.

    (find some scnerious in your project and write in this notes)

20. What are types of System testing?
    End to end testing, regression testing , performance testing, compatibility testing, usability testing,I18N, L10N, Adhoc, smoke
21. Diff B/W end to end and system testing?
    - Here we take end to end business scenarois and check whether it capable of handling or not and it is part of system testing
    - To completely test the software system we may have to do different types of testing like end to end , regression testing , performance ,compatability ,usability……
22. What is web Application?
    - Any application which is accessed through browser is called web application
    - Wherein every request sent by the browser is received and processed by webserver
23. Can you give me an example of web application?
    - Flipkart.com
    - Myntra.com
    - Facebook.com
    - Citibank.com

24. Can you give example for client server application?
    - Gtalk
    - Facebook messenger
25. What is Smoke testing?
    - Testing basic or critical feature of an application before doing through testing
    - As soon as build comes test engineer takes first 1 or ½ day to test basic or critical features performing detail testing.
    - If basic features are working then only the through testing will be done
26. When we should do smoke testing?
    - When ever the new build comes they perform the smoke testing,if fixing one bug might affect another module.developer needs time to fix so it is useful to find in beginning.
    - Developer copies software and while installing in customer environment he might miss some files,when customer perform acceptance testing they will find bug. To over this problem customer can also go about doing smoke testing.(received product properly or not and while installing they would have made some mistake).
27. Why we do smoke testing?
    - To check whether the product is stable testable or not we do smoke testing
    - In beginning itself if you find critical bug in basic features we can send it to developer .so that dev will have sufficient time to fix it.
    - If we find too many bugs means product is not testable. So that we can stop testing and spend all our time in identifying some more scnerios.
    - Dev are giving build means they would have dome some changes,changes have broken a very basic/critical features to find in early stage itself we do smoke testing
    - We do this to confirm that installation happened properly.if test engi come to know that software is not installed properly hence he might have sufficient time to reinstall the software and test
28. Diff b/w smoke and sanity:
    - Smoke
        - It is a shallow or wide testing approach

    - It is scripted either manual scripted or Automation script is used to test the application
    - Take all important features and do high level testing
    - Build comes – write automation script and run script.thus test done automatically
- Sanity
    - It is a narrow or deep testing approach
    - It is unscripted
    - Take some very very important feature and do deep testing
    - It is manullay done

29. What is adhoc testing?

- Testing the application randomly is called adhoc testing
- Wherein we don't refer any kind of formal documents like test scnerios or test cases

Why we do adhoc?

- Chances are there end user might use the application randomly and find the defects to avoid this test engi should do adhoc testing to find defects
- If you see requirement and test the product number of bug that are going to catch is less so don't follow the requirement come up with creative scenarios and test the application
- We do this to some how increase the bug count and improve the test coverage.

When we do Adhoc?

- When the build is functionally stable,then the test engineer think about to do adhoc testing.
- While doing smoke testing we must not do adhoc. Because we do that we will not have time to test basic features
- After testing the product according to the requirement if there is a time then do adhoc testing
- In between doing functional,integration,system testing ,if we comeup with creative ideas pause(stop) the formal testing and do adhoc testing
- If we get more ideas and should be documented and test if there is a time at end of the cycle

How we do adhoc testing?

- Prepare and give some examples.

30. What is exploratory testing?
    - Explore all the features ,understand all the features based on understanding identify the scenarious and perform testing

    Drawback:

    - If there is bug we might misunderstand as a features
    - There is a features we might misunderstand as a bug
    - If the features is missing we will never come to know that it is missing

    How to Overcome the drawback:

    - By interacting very closely with developer,Business Analyst or customer
    - Based on the Domain knowledge try to test the project
    - Based on the knowledge of project which is already released in the market

    How we manage the exploratory testing in project?

    - When there is no requirement ,Test engi should see the product and identify the scenarios
    - When new test engi joins,he should test based on documented scnerios
    - By doing this time spent on testing is more than the time spend on the understanding the product

    When we do Exploratory testing?

    - Whenever there is no requirement
    - There is a requirement but we don't have time to go through
    - There is a requierement,but is not understandable.
31. What is Compatability testing?
    - Testing the functionality of application in different Software and Hardware environment.

Why we do Compatability testing?

- Developer develop one application in one platform and test engi test the application in same platform and launch into the market and customer might be use the software in some other platform
- So if they find defect
    - Bad name spreads
    - Number of customers who buys the product reduces
- So,before we lanch the product to the business it should be tested in multiple platforms
- To check whether the product works consistently(in same way in all platform)

When we do Compatibility testing?

- When the product is stable in the base platform then we do compatability testing

How to do Compatability testing for he web application

I will test the application in different operating system in each operating system I will test in different browser, I test the different setting like enable/disable cookies,testing in different resolution

Defect in Compatability Testing:

- Lots of alignment issues
- Scattered content
- Change the look &feel
- Object overlapping
- Change in font size,color,style
- Scroll bar issue
- Image with certain format may not display

32. What is performance testing?
    - Tell what
    - Tell types
    - Tell how to do performance testing
33. What are types of performance testing?
    - Tell different types
    - Explain each type in detail

34. What is usability testing?
    - Testing usability of application whether it is user friendliness or not and it is measured on effort need to learn the application

    Eg:

    - Frequently accessed items
    - Time taken to perform task should be very less
    - Step involved in performing a task is less
    - Recollect/Recall how much user is able to recollect Application
    - After performing a particular task or app then user feel emotional or irritates

    Accuracy

    (For usability testing we write checklist we won't write test case)

    Checklist

    - All pages should have link to homepage
    - Pages should have unique page name
    - Page should have Title name
    - Upon on navigating links the colour of link should get change

35. Accessability Testing?
    - Accessability testing/ADA (American Disability act) or 508 Compliance testing
    - Testing the application from physical challenged person point of view
    - Check whether the software is userfriendly for physically challenged people
    - Search in internet for ADA testing .
36. What Is I18N testing?
    - It is a process of designing and developing a software for different Region and different language without engineering change is called I18N testing.
37. What is L10N testing?
    - It is a process of adapting the I18N testing software for a specific region and for specific language.
38. Realibilty Testing?
    - Testing Funcionality of application continuously for particular period of time is called Realibility testing.

39. Acceptance Testing?
    - Tell Definition
    - Tell 1st and 2nd Scnerios.

    Why customer do AT?

    - Under business pressure
    - Software company might push the software with lots of bug to prevent that,customer does Acceptance testing
    - If the product is lanched with critical bugs customer undergoes severe loss in the business to avoid that they do AT.
    - Chances are there Development and testing team might miss understand the requirement given in beginning and developed a wrong features to find that at end customer do AT.

    Diff B/W System testing and Acceptance testing?

    System :

    - End to end testing testing and production environment mustbe similar

    AT:

    - Tell 2nd Scnerio

    Types of Acceptance testing?

    - Alpha testing(It is a testing done by Professional TE within software company)
    - Beta testing(It is testing done in customer site)

40. TEST CASE:
    - It is line by line instruction or procedure to verify the functionality of application OR
    - It is document which covers all possible scenarios for the specification requirement.

    WHAT IS ADVANTAGE OF WRITING TESTCASE(***)

    - Inorder to ensure Appropriate test coverage
    - Each and every req is properly addressed
    - The newly hired TE can easily test the application by looking into testcase

- Level of consistency will get increased
- Avoid wastage of time of reading REQ and application to test
- The training cost can be avoided for newly hired resource
- It gives clear input to a MGMT on quality of work which is done by TE
- Enhancement is incorpated for provided existing testcase becomes very simple
- Test should happen based on process it should not happen based on individual person

When do we go about writing testcase?

- Whenever a customer comes and gives a new REQ the REQ will be given to DEV and TE
    - DEV team understand REQ and convert to coding and TESTING TEAM understand REQ and Convert the understanding into TESTCASE
- Whenever customer gives Enhancement
- Whenever customer comes with small modification request OR Change Request(CR)*** we Update existing TESTCASE.

41. Can you explain Testcase design technique?

- ERROR GUESSING:

  Guessing for error by giving invalid inputs and having the application to be tested. (more similar as ADHOC testing)
- EQUIVALENCE PARTITIONING:
    - It is a software testing technique which is used to identify a set of input values which can test different output condition
    - To avoid combinatiom of testing the application witn 'n' number of inputs

  Equivalence portioning :

  1. PRESSMAN METHOD
  2. PRACTISE METHOD
- PRESSMAN METHOD:
  1. Range of values:
      - Check with one valid and two invalid inputs
      - We need to ensure as much as possible that we are not identifying any inputs in and around boundary regions.
      - TELL 1 example like 100 to 1000

- Valid 1 and invalid 2 (i.e., valid 101 and 78 and 1500 is invalid

2. Set of values:

   Collection of well defined object.

   Eg: like dropdown box whenever we click on that button we can see set of values.

3. Boolean values
   Whenever we see values we need to have application tested both true and false condition
   Eg: Radio button

- PRACTISE METHOD:

  Divide the range into Equivalence parts and test the application for all the values and make sure that you are testing for atleast 2 invalid values.

  Practise method is followed when ever there is a condition

- BOUNDARY VALUE ANALYSE:
  - If the input is in the range of values between the A and B , then design the test case for both A-1,A,A+1 B-1,B,B+1

  Diff B/W Equivalence partition and Boundary value analyse

  EQUI:

  We have 1 valid and 2 invalid inputs

  We wont identify inputs in and around boundary

  We work with range of values, set of values, Boolean values

  BVA:

  We have 4 valid and 2 invalid

  We not able to identify inputs between the boundary

  We can work only on range of values

42. What is Regression testing?

- Tell Definition(with eg)
  If they ask types tell

43. What is diff B/W SDLC and STLC?
44. What is STLC?
    - Tell Definition
    - Explain each phase in detail
45. What is test plan?

    Tell Definition:

    Section of test plan:

    1. Objective:

       Overall description of project and to we go about testing Is captured.
    2. Scope:
       a. Features to be tested
       b. Features not to be tested
       c. Tell Eg
    3. Approach:
       a. What type of approach decided
       b. Weather flow graph
       c. High level scnerios
    4. Test Methodologies:
       a. What type of testing can be done for particular modules Like FT,IT,System ,compatibility,performance
       b. And we have to know how exactly we do all those testing
    5. Deliverables:

       After the software been tested by testing team there are some test deliverable which is provided before the completion of project and some provided during test phase and some provided after test phase

       Diff types of deliverable docu

       1. Test case document
       2. Test plan
       3. Test strategy
       4. Test script
       5. Test case
       6. Test data(the input you are going to give and test application)
       7. Requirement Tracibility matrix
       8. Test summary report

9. Installation guidelines
10. Defect report
11. Release Report

Release note:

Last day of release along with the product we release note to customer that note is called release note

Release note contain list of pending /open known bugs which are still there in product

List of bugs found in previous release product and fixed in current realese

List of features added,modified or removed

Procedure to install software

Version of product

Generally Test manager signs the release note

List of Platform in which product is tested or not tested

6. Test Environment:
    a. Procedure to install software
        i. Hardware side
            1. Server side
            2. Client side

        II. Software side

            1. Server side
            2. Clientside
7. Roles and Responsibilities:
    a. Test Manager:
        i. Write/review test plan
        ii. Design and implement test life cycle
        iii. Interact with Development team,customer and management
        iv. Handle issues and esculations
        v. Signoff release note
    b. Test Lead:
        i. Write/review test plan
        ii. Assign work to test engineers and make sure that they are completing the task with in schedule
        iii. Consolidate reports sent by TE and send it to Developers,Customers and management

c. Test Engineer:
    i. Review test plan
    ii. Write test case
    iii. Review test case
    iv. Prepare Tracability matrix
    v. Prepare test execution report
    vi. Setup test environment

8. Assumption:
    a. Assumption should be made whatever the features and Modules cover in future(Assuming every test engi will be there till end)
9. Risk:
    a. If we cannot achieve some planned activity in future then we fall under Risk Eg: If someone Quit the job
10. Mitigation/Contigency Plan:
    a. Inorder to overcome the problems created by Risk they write mitigation plan
       Eg: Whenever new engi joins,he might get help from secondary owner and write test case and execute testcase.
11. Entry and Exit Criteria:
    a. Entry Criteria for FT:
        i. Coding should be completed
        ii. Test case should be ready
        iii. WBT should be completed
        iv. Test environment should be ready
        v. Test data should be ready
    b. Exit Criteria for FT:
        i. Based on % of test case execution
        ii. Based on % of test case pass
        iii. Based on severity of defect
            1. Critical >20
            2. Major >60
            3. Minor >100
    c. Entry Criteria for IT:
        i. Should have met all the Exit criteria of FT
        ii. Features or modules has to be combined or integrated

d. Exit criteria for IT:
    i. Based on % of test case execution
    ii. Based on % of test case pass
    iii. Based on severity of defect
        1. Critical > 10
        2. Major > 40
        3. Minor >70
e. Entry criteria for System Testing:
    i. Exit criteria of IT testing becomes entry Criteria of System testing
    ii. We need have environment similar to production environment
    iii. FT and IT need to be Completed
    iv. Majority of modules and features to be integrated.

F: Exit criteria for System testing

98 % test case should get pass

Critical > 0

Blocker > 0

Major > 40

Minor > 70

12.Schedule

a. This section should cover which activity
    i. When exactly should start
    ii. When exactly should complete

13. Defect Tracking:

a. Name of defect tracking tool used
b. How do we report / communicate defect
c. How do we save our managed defect
d. How do we categories severity(Blocker,Critical,Major,Minor)
e. How do we categories priority(High,Medium,Low)

14.Test Automation:

a. Name of the Automation testing tool used
b. Features to be automated
c. Features not to be automated

15. Template:
    a. Which template used
16. Effort Estimitation:
    a. Cost
    b. Time taken
    c. Number of resourse

46. Tracability matrix;

- Also called as requirement tracibility matrix/Cross reference tracibility matrix
- Definition
    - It is a document which ensures each and every requirement holds minimum of one Test case against the corresponding requirement specification.
    - After Test prepared RTM is done
- Forward RTM:
    - If you are mapping root document to derived document is called Forward RTM
    - Eg: mapping REQ to test case to automation test script
- Backward RTM:
    - If you map derived document to root document is called backward RTM

Advantage:

RTM ensure that every requirement has atleast one test case which in turn confidence that every features tested atleast once

It gives tracability from high level requirement till automation script

Drawback:

RTM will not assure that you got 100 % coverage.

When do we prepare RTM?

Once we have done with testcase writing and before preparing the test environment or before executing test cases we prepare this RTM inorder to ensure we have not missed out to addressed any requirement.

47. What is a Defect?

Tell definition

Diff B/W defect,bug,error,failure?

Any deviation from REQ specification is called Defect

Informal name given to defect is called Bug

Anything which stops user from executing an application is called error

A single defect which leads to multiple defect called failure

48. Can you explain Defect lifecycle?

Explain each status with examples clearly.

49. What is severity?

- Severity is decided on customer based on impact of defect on customer business or The level of impact from the functionality prespective is called severity
- There are different level of severity
  - Blocker
  - Critical
  - Major
  - Minor
- Severity depends on how you justify
- Be prepare with examples

50. Priority:

- The level of impact from the business prespective is called priority
- Or Priority is importance to fix the defect , How soon defect has to be fixed
  - High
  - Medium
  - Low

51. Test strategy:

Session :

- Objective
- Scope
- Roles and responsibilities
- Test deliverable
- Test automation
- Defect tracking
- Assumption
- Risk

- Contigency plan
- Training plan

Diff B/W test plan and test strategy?

- Test strategy :
    - It is a document prepared by test manager or Project manager(before starting project given to customer)
    - It is prepared looking into CRS
    - It is a static document
- Test plan:
    - It is prepared by test manager,test lead,test engi
    - It is prepared looking into SRS
    - It is dynamic document

Some important points:

1 How do you determine the age of defect

- The time which defect was reported and time which defect is fixed (the time between these two action is age of defect)

2 How do you calculate defect density?

- Number of defect found divided by number of lines of code

3 What is defect leakage?

- Once the software is delivered to customer when customer uses s/w there if defect popup is called defect leakage.

4 When will you stop testing?

- When time span is less then we test the important features we stop testing
- Budget
- When functionality of application is stable
- When the basic features itself not working correctly

5 Why does software have bug?

- Software complexity
- Programming error
- Changing requirement
- Time pressure

6 How will you review testcase?

- I will look into header of testcase understand the requirement
- I look into the body of testcase and try to find
    - Missing scenarios
    - Wrong Scenarios

    - Repeated scenarios
- I will check whether it is the scenarios are organised properly or not
- I will check Whether it is simple to understand or not
- I look into the header of testcase and check whether all the attributes are covered or not
- I will check whether the template is according to standard defined in the project

7 What is Build?

- All the programs are compiled we get binaries and all binaries we compressed we get compressed file is called Build.

8 What is realese?

- The procedure from gathering the requirement, develop the software test it many times and launch it to production is called realese.

When will you realese product to production

- When all end to end business scenarios works proper
- When there are no blocker and critical bugs
- There is some pending bug but they are all minor issue and total bug is less than the acceptable limit set by customer
- When all features requested by customer is ready

9 What is patch?

- Patch is a small software which contain the modified program or new program
- When we install patch it will remove the old program and replaces with modified prrogram