1. What is Exploratory Testing?
   Testing without any fixed test cases;tester learns the app and tests at the same   time.

2. What is Tracebility matrix?
   A document that shows the link between requirements and test cases to ensure full   coverage

3. What is Boundary value Testing?
   Testing values at the boundaries(min,max,just inside,just outside)

4. What is Equivalence partitioning?
   Dividing input data into groups and testing only one value from each group

5. What is integration Testing?
   Testing done to check if two or more modules work correctly togethere

6. What determines the level of risk?
   risk=impact+probability

7. What is Alpha Testing?
   Testing done by internal team before giving the product to users

8. What is Beta Testing?
   Testing done by real users in real environment before final release

9. What is component Testing?
   Testing an individual module or component separtely

10. What is Functional System Testing?
    Testing the whole system to check if all features work as expected

11. What is Non-functional Testing?
    Testing

performance,speed,security,usability, etc.

12. What is GUI Testing?
    Testing the look & feel of the application:buttons,colors,fonts,layout

13. What is Adhoc Testing?
    Testing without planning,randomly,using tester's experience

14. What is Load Testing?
    Testing how the system works under normal and heavy user load

15. What is stress Testing?
    Testing how the system behaves under exterme load until it breaks

16. What is white box Testing?
    Testing the internal code

Types:

1. statement testing
2. Branch testing
3. Path testing
4. Loop testing

17. What is Black box testing?techniques?

Testing based on requirements,not code.

Techniques:

1. Boundary value
2. Equivalence partitioning
3. Decision table
4. State transition
5. use cases testing

18. Categories of defects

1. critical
2. Major
3. Minor
4. Trivial

19. What is Big-bang Testing is?

Testing where all modules are combined at once and then tested.no step-by-step   integration

20. What is the purpose of exit criteria?

To decide when to stop testing(example: all test cases executed,no high defects)

21. When should regression testing be performed?

After any code change,bug fix,or updated to ensure old features still work

22. What is 7 key principles? explain in detail?

1. Testing shows the presence of defects,not their absence

   - Testing can only prove that

bugs exist in the software.

   - it cannot guarantee that no bugs are left.

2. Exhaustive testing is impossible
   - you can not test everything(all inputs,all combinations).
   - so we test only important and high-risk areas.
3. Early testing saves time and money
   -start testing as earrly as possible in the SDLC

   -Early bugs are cheaper and easier to fix.
4. Defect cluster together
   -most bugs are usually found in few modules

   -these risky modules need more testing
5. Pesticide paradox
   -Repeating the same test cases

again and again will not find new defects

-so we need to review and update test cases regularly.

6. Testing depends on context
   - Testing approach changes based on application type:
   - Banking app - strict&detailed testing
   - Gamming app - performance&usability testing
7. Absence of errors is a fallacy
   - Even if the software has no bugs,it can still fail if it does not meet user needs
   - Bug-free software is useless if it is not the right software.

23. Difference between QA v/s QC v/s Tester

QA: prevents defects

QC: finds defects

Tester:Actually tests the

product

24. Difference between smoke vs sanity

    smoke:Basic bulid testing
    sanity: test specific functionality

25. Difference between verification and validation

    verification:are we building the product correctly?(process
    validation:are we building the right product?(actual testing)

26. Explain types of performance testing

    1.load testing
    2.stress testing
    3.spike testing
    4.endurance testing
    5.volume testing

27.What is error,defect,bug and failure?
   error:mistake by developer
   defect/bug:issue found during testing
   failure:when the defect appears during real use.

28.what is bug life cycle?
   new-assigned-in progress-fixed-retest-closed-reopen

29.Explain the difference between functional testing and nonfunctional testing
   functional:tests features
   non-functional:tests speed,performance,usability,security.

30.What is the difference between the STLC and SDLC
   SDLC - software developement life cycle

SDLC is the complete process of building the software from start to end.

SDLC includes: requirements gathering
Desinging
coding
Testing
Deployment
Maintenance

SDLC = How software is made.

STLC - Software Testing Life cycle

STLC is the process followed only for testing the software

STLC includes: requirements analysis
Test planning
Test design
Test environment setup

Test execution

Defect reporting&retesting

Test closure

STLC = How software is tested

SDLC

STLC

- full life cycle of the software

-only testing life cycle

- includes development+testing

- includes only testing phases

- Goal:build the product

- Goal:test the product

- developer are mainly involved

- Testers are mainly involved

- output:working software

- output:Tested software with defects reports

31. What is the diffwerence between test scenarios,test cases,and test script?

1. Test scenario

- what to test
- high-leavel idea
- it tells what functionality needs to be checked.

example: verify login functionality

Check user can add product to cart

2. Test case

- How to test
- step-by-step detailed instructions
- includes steps,expected result,test data, preconditions

example:

Test case of login:

step 1: enter valid username

2: enter valid password

3: click login

expected result:user should login successfully

3. Test script
- automation code
- written in tools like selenium,cypress,playwright
- it is used in automated testing
- it executes test steps automatically

example: A login test written in selenium using java/python.

term	meaning	menual/automation	example
Test scenario	what to test	menual	verify login works
Test case	How to test		

menual enter username-enter

password - login

Test script code that runs test automation selenium script for

login

32.explain what test plan is? what is the information that should be covered

A test plan is a document that explains how testing will be done for a project.

it tells:

. What to test

. How to test

. When to test
. What tools will be used
. What risks are there
. What needs to be completed before testing

it is like a roadmap for testing

1. Test plan ID
   unique identification number of the test plan.
2. introduction
   short explanation of the project and what wii be tested
3. scope of testing
   .in-scope:what feature will be tested
   .out-of-scope: what features will not be tested
4. Testing Types
   which testing will be done(ex:smoke,functional,regression,ui,performance,etc)

5. Test stategy

   high-level approach:

   .manual or automation

   .Test leavels(unit,integration,system)

   .Test design techniques(BVT,EP,etc)

6. Test Environment

   details of devices,browsers,os,tools needed.

7. Entry&exit criterria

   entry criterria:what must be ready before testing starts

   exit critera: what must be complated before testing ends

8. Test schedule/timeline

   start date,end date,milestones

9. Roles&responsibility

   who will do what(tester,QA lead,developer,manager)

10. Risk & mitigation

    possible risks in testing and how to handle them

11. Test deliverables

    what document wii be delivered:
    test cases
    test data
    test report
    bug report
    test summary

12. Tools

    any tool used like:

jira,testrail,postman,selenium,etc.

13. Approvals

    sign-off from QA lead/manager

33. What is Priority?

priority tells how fast the bug should be fixed.

it is decided by the business team/product owner.

.High priority - fix immediately

.medium priority - fix soon

.Low priority - fix later

example: app crash:high priority
spelling mistake:low priority

34. What is serverity?

serverity tells how badly the bug impacts the application. it is decided by the tester.

.critical serverity - system down
.major serverity - feature not working
.minor serverity - small issue,ui issues

example:
login not working - high serverity image alignment wrong - low serverity

35. Advantage of Bugzila

1.free and open-source

2.easy bug tracking
3.allows attachments and screenshorts
4.email notifications
5.good reporting system
6.easy to search and filter bugs

36. Difference between priority and severity

priority
severity
business urgency
technical impact
fix order
system damage leavel
set by product/business   set by tester
example:fix now
example: app crashes

37. What are the different

methodologies in agile development model?

1. scrum
2. kanban
3. extreme programming(xp)
4. lean developement
5. crystal method
6. feature driven development
7. DSDM(daynamic systems development method)

38. Explain the different between authorization and authentication in web testing.what are the common problems faced in web tesing?

1.Authentication (authan)

- Authentication means checking who the user is.
- the system verifies the identity of a user.

example:

.entering username+password to

login
.OTP verification
.fingerprint or face id

in short:
authentication = are you really the person you claim to be?

2.Authorization(Authz)

- Authorization means checking what the user is allowed to do.
- it decides the permission and access levels after the user is authenticated

example:
. A normal user cannot aceess the domain dashboard
. A student cannot access teacher settings
. A guest cannot edit or delete posts.

in short:

Authorization = what actions are you allowed to perform?

simple difference
Authentication
Authorization
confirm identity
confirm permission
happens before authorization
happens after authentication
login step
access control step
example:login with password
example:admin-only access

confirm problems faced in web testing

1.browser compability issues
.website looks different on chrome,safari,or firefox.
.buttons or fonts appear broken
2.responsiveness problems

.website not working properly on mobile devices

.text overlaps,images not fitting

3.slow loading speed

. large images

. heavy scripts

. poor server response

4. broken links

. 404 page not founds errors

. redirects not working

5. security issue

. weak password validation

. No HTTPS

. cross-site screpting(xss)

. SQL injection valunerabilities

6. Session Handling problems

. session not ending after logout

. auto-login not working

. session timeout issues

7. From validation issues

. accepts invalid email or password
. error message missing
. required fields not properly checked

8. performance issues

. website crashes under high load
. server delays
. Timeout errors

9. Database errors

. duplicate enteries
. data not saving or not updating
. wrong data showing on screen

10. Accessibility problems

. no support for screen readers
. low constrast text
. missing alt-text in images