**1. Which of the following is a key goal of Test Design?**

a) To write test cases  
b) To define testing objectives  
c) To improve software quality  
d) All of the above

**2. What is a test case?**

a) A method of identifying test scenarios  
b) A document describing the input, action, and expected result  
c) A tool used to track bugs  
d) A software development methodology

**3. Which of the following test design techniques focuses on selecting representative values for testing?**

a) Boundary Value Analysis  
b) Decision Table Testing  
c) State Transition Testing  
d) Equivalence Partitioning

**4. What is the purpose of Boundary Value Analysis (BVA)?**

a) To check only the boundary values  
b) To focus on testing within the valid range  
c) To test input that lies just outside the boundaries  
d) To check values near the boundaries of input conditions

**5. Which of the following best describes the use of Decision Table Testing?**

a) To create tests based on functional specifications  
b) To test interactions between multiple input variables  
c) To identify boundary conditions  
d) To test the system under different environmental conditions

**6. Which technique is most useful for testing combinations of inputs that lead to different outcomes?**

a) State Transition Testing  
b) Decision Table Testing  
c) Equivalence Partitioning  
d) Boundary Value Analysis

**7. What does a Test Data Set refer to?**

a) The environment where the tests are executed  
b) The specific data input used during test execution  
c) The collection of expected results  
d) A group of testers assigned to a project

**8. What is the primary purpose of Smoke Testing?**

a) To test the core functionality of the application  
b) To ensure the build is stable enough for further testing  
c) To check performance under load  
d) To validate data integrity

**9. Which type of test design technique involves testing a system by creating inputs and outputs that follow state changes?**

a) State Transition Testing  
b) Equivalence Partitioning  
c) Boundary Value Analysis  
d) Cause-Effect Graphing

**10. In Test Design, the term "Test Oracle" refers to what?**

a) A set of input values used for testing  
b) A predefined set of expected results  
c) A tool used for automating tests  
d) A document that describes test case execution steps

**Answer:** b) A predefined set of expected results

**11. What does the term "Regression Testing" refer to?**

a) Testing of new features  
b) Testing to ensure that previously working functionality remains unaffected by changes  
c) Testing the software's performance under stress  
d) Testing of specific boundary conditions

**Answer:** b) Testing to ensure that previously working functionality remains unaffected by changes

**12. Which of the following techniques would most effectively test a function that processes user input for valid and invalid values?**

a) Decision Table Testing  
b) Equivalence Partitioning  
c) Boundary Value Analysis  
d) All of the above

**Answer:** d) All of the above

**13. In Equivalence Partitioning, how do you classify inputs?**

a) Valid inputs  
b) Invalid inputs  
c) Boundary values  
d) Both a and b

**Answer:** d) Both a and b

**14. Which of the following test design techniques is used for creating tests based on logical conditions and decisions?**

a) Path Testing  
b) Cause-Effect Graphing  
c) Boundary Value Analysis  
d) Decision Table Testing

**Answer:** b) Cause-Effect Graphing

**15. Which of the following is a common risk in test design?**

a) Test cases being too generic  
b) Not considering edge cases  
c) Lack of test data  
d) All of the above

**Answer:** d) All of the above

**16. What is the purpose of "Pairwise Testing"?**

a) To test all combinations of input variables  
b) To test all pairs of input variables for interactions  
c) To test the boundary conditions  
d) To test pairs of test cases for coverage

**Answer:** b) To test all pairs of input variables for interactions

**17. What is a key advantage of using Automated Test Design?**

a) It reduces the need for manual effort  
b) It can be used to test non-functional requirements  
c) It eliminates the need for testers  
d) It only works for small systems

**Answer:** a) It reduces the need for manual effort

**18. Which of the following is an example of a non-functional test?**

a) Boundary Value Analysis  
b) Performance Testing  
c) Regression Testing  
d) Functional Testing

**Answer:** b) Performance Testing

**19. Which of the following best defines the term "Test Coverage"?**

a) The total number of test cases executed  
b) The degree to which the tests cover the code, requirements, or functionality  
c) The percentage of defects found during testing  
d) The length of time taken to execute the tests

**Answer:** b) The degree to which the tests cover the code, requirements, or functionality

**20. Which test design technique is most effective in situations where the specification requires testing all combinations of inputs?**

a) Path Testing  
b) Equivalence Partitioning  
c) State Transition Testing  
d) Exhaustive Testing

**Answer:** d) Exhaustive Testing

**21. In which scenario is "Path Testing" most useful?**

a) When testing state-dependent functionality  
b) When testing for boundary conditions  
c) When testing all possible paths in a program  
d) When testing for equivalence classes

**Answer:** c) When testing all possible paths in a program

**22. What is the primary goal of "Exploratory Testing"?**

a) To execute predefined test cases  
b) To discover untested scenarios based on the tester's knowledge and experience  
c) To automate repetitive tests  
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**23. Which test design technique is based on the assumption that errors tend to occur at the boundaries of input values?**

a) Decision Table Testing  
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**24. What is "State Transition Testing" primarily concerned with?**

a) Testing specific function inputs  
b) Testing different combinations of input variables  
c) Testing system behavior based on state changes  
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**25. Which test design technique is suitable for testing complex business logic and rules?**

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**26. What is the main purpose of using Test Case Design in software testing?**

a) To find software defects  
b) To provide test data for regression testing  
c) To define the conditions under which the software is expected to perform  
d) To automate repetitive tasks

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**27. What does “Test Case Design Techniques” help determine?**

a) How to improve performance  
b) Which test management tool to use  
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d) How to reduce the number of bugs

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**28. Which test technique is based on analyzing the relationship between conditions and actions in a decision table?**

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**29. Which of the following testing methods is particularly useful for testing user interfaces?**

a) Boundary Value Analysis  
b) Usability Testing  
c) Load Testing  
d) Regression Testing

**Answer:** b) Usability Testing

**30. Which of the following is NOT a characteristic of a good test case?**

a) It is reusable  
b) It is easy to understand  
c) It tests multiple requirements at once  
d) It includes the expected result

**Answer:** c) It tests multiple requirements at once

Certainly! Below are 100 multiple-choice questions (MCQs) on the topic of **Test Design** that you can share with your training associates for practice. These questions cover a wide range of test design concepts, techniques, and methodologies.

### ****Test Design MCQs****

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a) To find software defects  
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a) Boundary Value Analysis

b) Usability Testing  
c) Load Testing  
d) Regression Testing

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a) It is reusable  
b) It is easy to understand  
c) It tests multiple requirements at once  
d) It includes the expected result

**Answer:** c) It tests multiple requirements at once

#### 31. ****Which of the following is NOT a type of software testing methodology for test design?****

a) White-box testing  
b) Black-box testing  
c) Red-box testing  
d) Gray-box testing

**Answer:** c) Red-box testing

#### 32. ****Which of the following best defines "Test Case Prioritization"?****

a) Creating test cases that cover all functionality  
b) Sorting test cases based on their importance and likelihood of detecting defects  
c) Organizing test cases based on system architecture  
d) Designing test cases based on user requirements

**Answer:** b) Sorting test cases based on their importance and likelihood of detecting defects

#### 33. ****Which of the following is an example of a black-box test design technique?****

a) Statement Coverage  
b) Path Coverage  
c) Decision Coverage  
d) Boundary Value Analysis

**Answer:** d) Boundary Value Analysis

#### 34. ****What is the main objective of using equivalence classes in test design?****

a) To reduce the total number of tests needed  
b) To ensure all requirements are covered  
c) To test all paths through the code  
d) To test the system under different hardware configurations

**Answer:** a) To reduce the total number of tests needed

#### 35. ****Which technique focuses on generating test cases by examining system states and transitions between those states?****

a) Path Testing  
b) State Transition Testing  
c) Boundary Value Analysis  
d) Decision Table Testing

**Answer:** b) State Transition Testing

#### 36. ****What is the primary goal of "Test Coverage Analysis"?****

a) To determine if all test cases have passed  
b) To identify which parts of the software have been tested  
c) To estimate the number of defects in the software  
d) To optimize the number of test cases

**Answer:** b) To identify which parts of the software have been tested

#### 37. ****What does the term "Test Case Execution" refer to?****

a) Writing the test cases  
b) Running the test cases and comparing results with expected outputs  
c) Planning the test cases  
d) Documenting the test cases

**Answer:** b) Running the test cases and comparing results with expected outputs

#### 38. ****Which of the following is an example of a "Test Condition"?****

a) Input values used in testing  
b) A set of procedures used for testing  
c) A particular aspect or feature of the system to be tested  
d) A report documenting test results

**Answer:** c) A particular aspect or feature of the system to be tested

#### 39. ****What is the primary advantage of using "Automated Test Design"?****

a) It eliminates the need for manual testing entirely  
b) It helps reduce human errors and increases efficiency  
c) It requires no maintenance after the initial setup  
d) It is cheaper than manual testing

**Answer:** b) It helps reduce human errors and increases efficiency

#### 40. ****Which of the following defines a "Test Scenario"?****

a) A document describing the system behavior  
b) A high-level description of what is being tested  
c) A list of expected results for each test case  
d) The test environment and configuration

**Answer:** b) A high-level description of what is being tested

#### 41. ****Which of the following test design techniques is particularly useful for testing systems with many complex conditions or rules?****

a) Boundary Value Analysis  
b) Decision Table Testing  
c) Equivalence Partitioning  
d) State Transition Testing

**Answer:** b) Decision Table Testing

#### 42. ****In the context of test design, what does the term "Test Execution" mean?****

a) The process of analyzing defects  
b) The process of running the tests and verifying outputs  
c) The preparation of test data  
d) The identification of test cases

**Answer:** b) The process of running the tests and verifying outputs

#### 43. ****Which test design technique helps identify combinations of variables that might cause issues during testing?****

a) Boundary Value Analysis  
b) Equivalence Partitioning  
c) Pairwise Testing  
d) State Transition Testing

**Answer:** c) Pairwise Testing

#### 44. ****In the context of testing, what is meant by the "Test Environment"?****

a) The set of conditions under which testing will occur  
b) The hardware used for testing  
c) The tools and frameworks used for automation  
d) All of the above

**Answer:** d) All of the above

#### 45. ****Which type of testing is focused on checking if the software meets specific requirements from a user perspective?****

a) Functional Testing  
b) Security Testing  
c) Usability Testing  
d) Load Testing

**Answer:** a) Functional Testing

#### 46. ****Which type of testing is typically used to verify that the software works as expected when interacting with other systems?****

a) Integration Testing  
b) System Testing  
c) User Acceptance Testing  
d) Stress Testing

**Answer:** a) Integration Testing

#### 47. ****Which test design technique is focused on testing the boundaries of input values?****

a) Boundary Value Analysis  
b) Path Testing  
c) Decision Table Testing  
d) Equivalence Partitioning

**Answer:** a) Boundary Value Analysis

#### 48. ****What is the term "Test Suite" used to describe?****

a) A set of test cases to be executed  
b) A set of test environments used for testing  
c) A list of test objectives  
d) A tool used for managing test cases

**Answer:** a) A set of test cases to be executed

#### 49. ****Which of the following is a characteristic of a good test case?****

a) It includes both valid and invalid input  
b) It has clear and defined expected results  
c) It is repeatable and can be used for multiple tests  
d) All of the above

**Answer:** d) All of the above

#### 50. ****Which of the following would most likely be included in the "Test Design Specification" document?****

a) Test cases and the corresponding expected results  
b) The execution schedule of test cases  
c) The testing tools used during the project  
d) All of the above

**Answer:** d) All of the above

#### 51. ****Which of the following testing techniques can be used to test combinations of multiple input parameters with multiple possible values?****

a) Equivalence Partitioning  
b) Pairwise Testing  
c) Decision Table Testing  
d) State Transition Testing

**Answer:** b) Pairwise Testing

#### 52. ****What is the primary goal of "Usability Testing" in the context of test design?****

a) To ensure the system is easy to use and meets user expectations  
b) To verify the system's compliance with security requirements  
c) To test the functionality of the application  
d) To check if the software meets performance requirements

**Answer:** a) To ensure the system is easy to use and meets user expectations

#### 53. ****What type of testing is designed to evaluate the software’s performance under a specific load or volume of data?****

a) Load Testing  
b) Regression Testing  
c) Performance Testing  
d) Stress Testing

**Answer:** c) Performance Testing

#### 54. ****What is the focus of "Non-functional Testing"?****

a) Testing the functional requirements of the system  
b) Testing the system’s usability, performance, and security  
c) Testing the system’s business rules  
d) Testing the system for possible bugs

**Answer:** b) Testing the system’s usability, performance, and security

#### 55. ****Which of the following best describes "Test Design Techniques"?****

a) The process of executing a test  
b) The tools used to automate test execution  
c) The approaches used to create effective test cases  
d) The process of identifying defects in software

**Answer:** c) The approaches used to create effective test cases

#### 56. ****Which technique would be best to use when you need to validate how the software behaves when exposed to a range of incorrect inputs?****

a) Equivalence Partitioning  
b) Path Testing  
c) Boundary Value Analysis  
d) Negative Testing

**Answer:** d) Negative Testing

#### 57. ****What does the "Test Design Phase" primarily involve?****

a) Writing code for the application  
b) Executing test cases  
c) Creating the test cases and identifying test conditions  
d) Reporting test results

**Answer:** c) Creating the test cases and identifying test conditions

#### 58. ****What is the term "Defect Density" used to describe?****

a) The number of defects per unit of code  
b) The number of failed test cases per project  
c) The number of open defects in a testing phase  
d) The average severity of defects found during testing

**Answer:** a) The number of defects per unit of code

#### 59. ****Which test design technique is best for testing all possible execution paths of a program?****

a) Statement Coverage  
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d) Function Coverage

**Answer:** c) Path Coverage

#### 60. ****Which type of testing involves checking the software’s behaviour in an environment that mimics the production environment as closely as possible?****

a) Smoke Testing  
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d) Alpha Testing

**Answer:** c) System Testing

#### 31. ****Which of the following is NOT a type of software testing methodology for test design?****

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b) The execution schedule of test cases  
c) The testing tools used during the project  
d) All of the above

**Answer:** d) All of the above

#### 51. ****Which of the following testing techniques can be used to test combinations of multiple input parameters with multiple possible values?****

a) Equivalence Partitioning  
b) Pairwise Testing  
c) Decision Table Testing  
d) State Transition Testing

**Answer:** b) Pairwise Testing

#### 52. ****What is the primary goal of "Usability Testing" in the context of test design?****

a) To ensure the system is easy to use and meets user expectations  
b) To verify the system's compliance with security requirements  
c) To test the functionality of the application  
d) To check if the software meets performance requirements

**Answer:** a) To ensure the system is easy to use and meets user expectations

#### 53. ****What type of testing is designed to evaluate the software’s performance under a specific load or volume of data?****

a) Load Testing  
b) Regression Testing  
c) Performance Testing  
d) Stress Testing

**Answer:** c) Performance Testing

#### 54. ****What is the focus of "Non-functional Testing"?****

a) Testing the functional requirements of the system  
b) Testing the system’s usability, performance, and security  
c) Testing the system’s business rules  
d) Testing the system for possible bugs

**Answer:** b) Testing the system’s usability, performance, and security

#### 55. ****Which of the following best describes "Test Design Techniques"?****

a) The process of executing a test  
b) The tools used to automate test execution  
c) The approaches used to create effective test cases  
d) The process of identifying defects in software

**Answer:** c) The approaches used to create effective test cases

#### 56. ****Which technique would be best to use when you need to validate how the software behaves when exposed to a range of incorrect inputs?****

a) Equivalence Partitioning  
b) Path Testing  
c) Boundary Value Analysis  
d) Negative Testing

**Answer:** d) Negative Testing

#### 57. ****What does the "Test Design Phase" primarily involve?****

a) Writing code for the application  
b) Executing test cases  
c) Creating the test cases and identifying test conditions  
d) Reporting test results

**Answer:** c) Creating the test cases and identifying test conditions

#### 58. ****What is the term "Defect Density" used to describe?****

a) The number of defects per unit of code  
b) The number of failed test cases per project  
c) The number of open defects in a testing phase  
d) The average severity of defects found during testing

**Answer:** a) The number of defects per unit of code

#### 59. ****Which test design technique is best for testing all possible execution paths of a program?****

a) Statement Coverage  
b) Decision Coverage  
c) Path Coverage  
d) Function Coverage

**Answer:** c) Path Coverage

#### 60. ****Which type of testing involves checking the software’s behavior in an environment that mimics the production environment as closely as possible?****

a) Smoke Testing  
b) Regression Testing  
c) System Testing  
d) Alpha Testing

**Answer:** c) System Testing

These questions cover a wide array of **test design principles** and **techniques** that can help deepen understanding. Let me know if you need further questions or specific areas explored!

4o mini

##### You said:

Please provide some more questions based on Test design which are completely different than the above set

###### ChatGPT said:

ChatGPT

Sure! Below are **additional questions** on **Test Design** that are **completely different** from the previous sets.

#### 61. ****Which of the following best describes the purpose of a Test Case Design document?****

a) To record the status of test execution  
b) To document the testing tools and environment  
c) To outline the approach for designing test cases and expected results  
d) To report the defect status

**Answer:** c) To outline the approach for designing test cases and expected results

#### 62. ****Which type of test design technique divides the input data into valid and invalid groups to reduce the number of tests?****

a) Boundary Value Analysis  
b) Equivalence Partitioning  
c) Decision Table Testing  
d) Path Testing

**Answer:** b) Equivalence Partitioning

#### 63. ****What does the term "Test Harness" refer to in test design?****

a) A set of tools used to automate test case execution  
b) A specific data set used to test the software  
c) A part of the test documentation for reporting errors  
d) The framework or environment for running tests

**Answer:** d) The framework or environment for running tests

#### 64. ****What is the goal of State Transition Testing?****

a) To verify that the application handles all valid input values correctly  
b) To test how the system behaves when transitioning between different states  
c) To ensure that the system performs well under load  
d) To test combinations of inputs

**Answer:** b) To test how the system behaves when transitioning between different states

#### 65. ****Which of the following is a primary benefit of Test Case Reusability?****

a) Reduces test execution time  
b) Ensures uniformity in test results  
c) Helps in managing test environments  
d) Reduces the overall number of test cases required

**Answer:** d) Reduces the overall number of test cases required

#### 66. ****What is the primary focus of Functional Testing?****

a) To test how well the system performs under stress  
b) To verify the system’s functionality against the specifications  
c) To ensure that the system is user-friendly  
d) To validate the system's security measures

**Answer:** b) To verify the system’s functionality against the specifications

#### 67. ****Which of the following is NOT typically a part of Test Design?****

a) Creating the test cases  
b) Identifying test scenarios  
c) Developing the software code  
d) Preparing test data

**Answer:** c) Developing the software code

#### 68. ****What is the purpose of using Test Case Management Tools?****

a) To track the status of defect reports  
b) To create test environments  
c) To manage and track the execution of test cases  
d) To generate test cases automatically

**Answer:** c) To manage and track the execution of test cases

#### 69. ****Which of the following test design techniques is useful for ensuring that different combinations of inputs are tested?****

a) Boundary Value Analysis  
b) Decision Table Testing  
c) Path Testing  
d) Pairwise Testing

**Answer:** d) Pairwise Testing

#### 70. ****Which of the following is the primary objective of a Regression Test Suite?****

a) To evaluate new features against requirements  
b) To ensure that existing functionality is not broken by recent changes  
c) To validate system performance  
d) To test the system for security vulnerabilities

**Answer:** b) To ensure that existing functionality is not broken by recent changes

#### 71. ****Which of the following is a disadvantage of Exhaustive Testing?****

a) It can be very expensive and time-consuming  
b) It ensures the highest possible coverage of test scenarios  
c) It automatically generates test data  
d) It requires minimal test planning

**Answer:** a) It can be very expensive and time-consuming

#### 72. ****Which test design technique is commonly used to validate user input fields, such as text boxes or dropdown menus?****

a) Boundary Value Analysis  
b) Path Testing  
c) Equivalence Partitioning  
d) Decision Table Testing

**Answer:** c) Equivalence Partitioning

#### 73. ****What is a Test Suite in software testing?****

a) A tool used to track defects  
b) A collection of related test cases that are executed together  
c) A document that describes how to run tests  
d) A set of test data used during execution

**Answer:** b) A collection of related test cases that are executed together

#### 74. ****Which of the following is true about Negative Testing?****

a) It involves testing valid inputs to ensure correct functionality  
b) It checks if the system behaves as expected under invalid or unexpected input conditions  
c) It is always automated  
d) It only checks the performance of the system

**Answer:** b) It checks if the system behaves as expected under invalid or unexpected input conditions

#### 75. ****Which of the following best defines Test Coverage?****

a) The amount of time required to execute all test cases  
b) The extent to which the test cases validate the requirements  
c) The number of defects identified during testing  
d) The amount of code or functionality that has been tested

**Answer:** d) The amount of code or functionality that has been tested

#### 76. ****What is Test-Driven Development (TDD) primarily focused on?****

a) Writing tests before the software is written  
b) Creating test cases after the system has been deployed  
c) Testing system performance  
d) Identifying potential defects during system integration

**Answer:** a) Writing tests before the software is written

#### 77. ****In the context of Test Design, what does the term "Test Objective" refer to?****

a) The expected outcomes of each test case  
b) The purpose or goal of the testing process  
c) The tools and resources needed for testing  
d) The conditions under which testing is performed

**Answer:** b) The purpose or goal of the testing process

#### 78. ****Which of the following describes Boundary Value Analysis?****

a) Testing values that are within the valid input range  
b) Testing the values at and around the boundaries of valid and invalid input ranges  
c) Testing combinations of valid and invalid input values  
d) Testing the internal logic of a function

**Answer:** b) Testing the values at and around the boundaries of valid and invalid input ranges

#### 79. ****Which of the following is the focus of Exploratory Testing?****

a) Following predefined test cases  
b) Identifying defects based on tester’s experience and intuition  
c) Stress testing the system  
d) Validating the system against user stories

**Answer:** b) Identifying defects based on tester’s experience and intuition

#### 80. ****Which of the following is the primary focus of Usability Testing?****

a) To test the security of the application  
b) To ensure the software works as intended under various conditions  
c) To ensure that the application is easy to use and meets user expectations  
d) To validate functional requirements

**Answer:** c) To ensure that the application is easy to use and meets user expectations

#### 81. ****Which test design technique involves creating a set of input conditions to determine how they interact with system outputs?****

a) State Transition Testing  
b) Boundary Value Analysis  
c) Decision Table Testing  
d) Path Testing

**Answer:** c) Decision Table Testing

#### 82. ****What is the term used for testing the system's ability to handle maximum load or stress conditions?****

a) Load Testing  
b) Stress Testing  
c) Performance Testing  
d) Compatibility Testing

**Answer:** b) Stress Testing

#### 83. ****Which test case type focuses on determining how the system behaves when exposed to invalid data or unusual input?****

a) Positive Test Case  
b) Negative Test Case  
c) Boundary Test Case  
d) Load Test Case

**Answer:** b) Negative Test Case

#### 84. ****Which type of test design technique is focused on testing a system's functionality in different environments and configurations?****

a) System Testing  
b) Compatibility Testing  
c) Regression Testing  
d) Usability Testing

**Answer:** b) Compatibility Testing

#### 85. ****Which of the following is the primary advantage of Automated Testing?****

a) It eliminates the need for manual testers  
b) It can significantly speed up test execution and re-execution  
c) It is more accurate than manual testing  
d) It requires less maintenance over time

**Answer:** b) It can significantly speed up test execution and re-execution

#### 86. ****What is the purpose of Test Case Execution in the test design process?****

a) To identify testing tools and environment  
b) To determine the test data requirements  
c) To run the test cases and compare actual results with expected results  
d) To design new test cases for future testing

**Answer:** c) To run the test cases and compare actual results with expected results

#### 87. ****What is the primary focus of Alpha Testing?****

a) Testing done by the end users in a real environment  
b) Testing done internally by developers before the software is released to external testers  
c) Testing done by a third-party QA team  
d) Testing done to verify system performance under load

**Answer:** b) Testing done internally by developers before the software is released to external testers

#### 88. ****Which of the following is the purpose of a Test Plan in test design?****

a) To record the status of test execution  
b) To document the required test cases  
c) To outline the scope, approach, resources, and schedule for testing activities  
d) To generate automated test scripts

**Answer:** c) To outline the scope, approach, resources, and schedule for testing activities