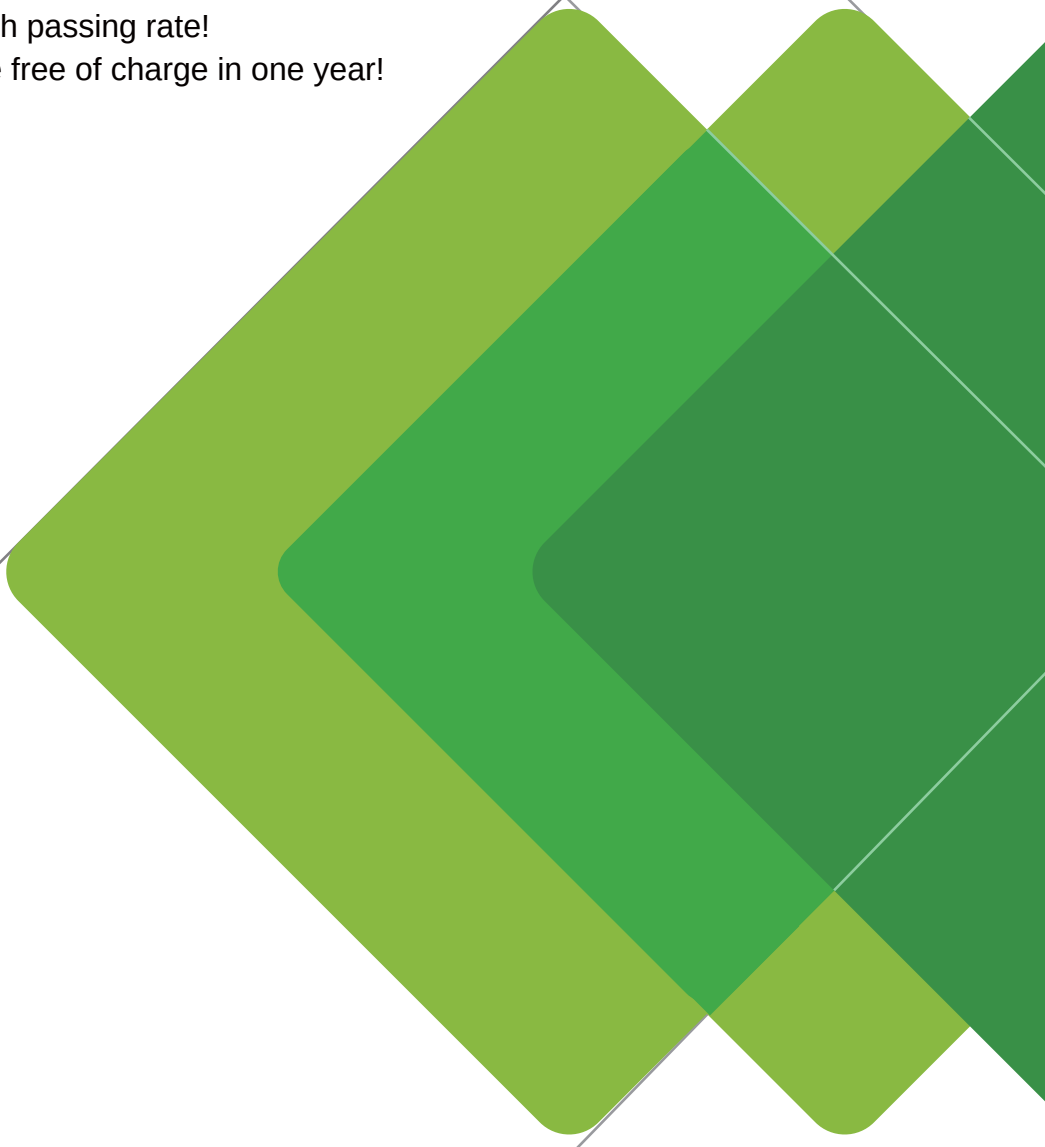
IT-DUMPS Q&A

Accurate study guides, High passing rate!
IT-dumps provides update free of charge in one year!



Exam : **CTFL_SYLL_4.0**

Title : ISTQB Certified Tester Foundation Level (CTFL)

Version : DEMO

1.The tests at the bottom layer of the test pyramid:
A. run faster than the tests at the top layer of the pyramid
B. cover larger pieces of functionalities than the tests at the top layer of the pyramid
C. are defined as 'UI Tests' or 'End-To-End tests' in the different models of the pyramid
D. are unscripted tests produced by experience-based test techniques
Answer: A
Explanation:
The tests at the bottom layer of the test pyramid run faster than the tests at the top layer of the pyramid because they are more focused, isolated, and atomic. They usually test individual units or components of the software system, such as classes, methods, or functions. They are also easier to maintain and execute, as they have fewer dependencies and interactions with other parts of the system. The tests at the top layer of the test pyramid, on the other hand, are slower because they cover larger pieces of functionalities, such as user interfaces, workflows, or end-to-end scenarios. They also have more dependencies and interactions with other systems, such as databases, networks, or external services. They are more complex and costly to maintain and execute, as they require more setup and teardown procedures, test data, and test environments.
Reference: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:
ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 3.2.1, Test Pyramid1 ISTQB® Glossary of Testing Terms v4.0, Test Pyramid2

2.Test automation allows you to:
A. demonstrate the absence of defects
B. produce tests that are less subject to human errors
C. avoid performing exploratory testing
D. increase test process efficiency by facilitating management of defects
Answer: B
Explanation:
Test automation allows you to produce tests that are less subject to human errors, as they can execute predefined test scripts or test cases with consistent inputs, outputs, and expected results. Test automation can also reduce the manual effort and time required to execute repetitive or tedious tests, such as regression tests, performance tests, or data-driven tests. Test automation does not demonstrate the absence of defects, as it can only verify the expected behavior of the system under test, not the unexpected or unknown behavior. Test automation does not avoid performing exploratory testing, as exploratory testing is a valuable technique to discover new information, risks, or defects that are not covered by automated tests. Test automation does not increase test process efficiency by facilitating management of defects, as defect management is a separate activity that involves reporting, tracking, analyzing, and resolving defects, which may or may not be related to automated tests.
Reference: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:
ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 3.3.1, Test Automation1 ISTQB® Glossary of Testing Terms v4.0, Test Automation2

3.Which of the following statements about how different types of test tools support testers is true?
A. The support offered by a test data preparation tool is often leveraged by testers to run automated regression test suites

B. The support offered by a performance testing tool is often leveraged by testers to run load tests
C. The support offered by a bug prediction tool is often used by testers to track the bugs they found
D. The support offered by a continuous integration tool is often leveraged by testers to automatically generate test cases from a model
Answer: B
Explanation:
The support offered by a performance testing tool is often leveraged by testers to run load tests, which are tests that simulate a large number of concurrent users or transactions on the system under test, in order to measure its performance, reliability, and scalability. Performance testing tools can help testers to generate realistic workloads, monitor system behavior, collect and analyze performance metrics, and identify performance bottlenecks.
The other statements are false, because:
- A test data preparation tool is a tool that helps testers to create, manage, and manipulate test data, which are the inputs and outputs of test cases. Test data preparation tools are not directly related to running automated regression test suites, which are test suites that verify that the system still works as expected after changes or modifications. Regression test suites are usually executed by test execution tools, which are tools that can automatically run test cases and compare actual results with expected results.
- A bug prediction tool is a tool that uses machine learning or statistical techniques to predict the likelihood of defects in a software system, based on various factors such as code complexity, code churn, code coverage, code smells, etc. Bug prediction tools are not used by testers to track the bugs they found, which are the actual defects that have been detected and reported during testing. Bugs are usually tracked by defect management tools, which are tools that help testers to record, monitor, analyze, and resolve defects.
- A continuous integration tool is a tool that enables the integration of code changes from multiple developers into a shared repository, and the execution of automated builds and tests, in order to ensure the quality and consistency of the software system. Continuous integration tools are not used by testers to automatically generate test cases from a model, which are test cases that are derived from a representation of the system under test, such as a state diagram, a decision table, a use case, etc. Test cases can be automatically generated by test design tools, which are tools that support the implementation and maintenance of test cases, based on test design specifications or test models.
References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:
- ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 3.4.1, Types of Test Tools
- ISTQB® Glossary of Testing Terms v4.0, Performance Testing Tool, Test Data Preparation Tool, Bug Prediction Tool, Continuous Integration Tool, Test Execution Tool, Defect Management Tool, Test Design Tool

4.Which of the following statements about branch coverage is true?
A. The minimum number of test cases needed to achieve full branch coverage, is usually lower than that needed to achieve full statement coverage
B. If full branch coverage has been achieved, then all unconditional branches within the code have surely been exercised
C. If full branch coverage has been achieved, then all combinations of conditions in a decision table have surely been exercised

D. Exercising at least one of the decision outcomes for all decisions within the code, ensures achieving full branch coverage

Answer: D

Explanation:

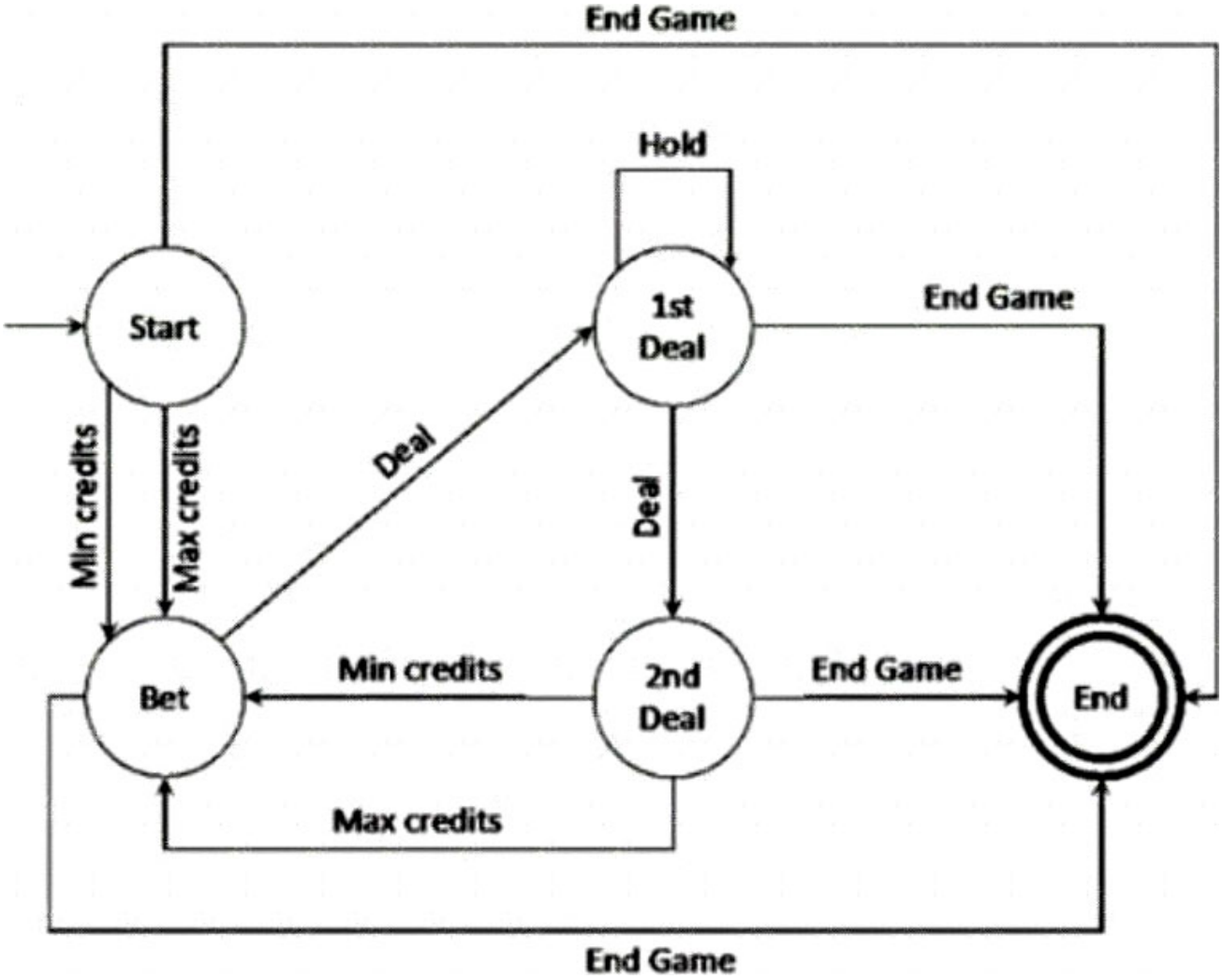
Exploratory testing is an experience-based test technique in which testers dynamically design and execute tests based on their knowledge, intuition, and learning of the software system, without following predefined test scripts or test cases. Exploratory testing can be conducted following a session-based approach, which is a structured way of managing and measuring exploratory testing. In a session-based approach, the testers perform uninterrupted test sessions, usually lasting between 60 and 120 minutes, with a specific charter or goal, and document the issues detected, the test coverage achieved, and the time spent in session sheets. Session sheets are records of the test activities, results, and observations during a test session, which can be used for reporting, debriefing, and learning purposes.

The other statements are false, because:

- Exploratory testing is not a test technique in which testers explore the requirements specification to detect non testable requirements, but rather a test technique in which testers explore the software system to detect functional and non-functional defects, as well as to learn new information, risks, or opportunities. Non testable requirements are requirements that are ambiguous, incomplete, inconsistent, or not verifiable, which can affect the quality and effectiveness of the testing process. Non testable requirements can be detected by applying static testing techniques, such as reviews or inspections, to the requirements specification, before the software system is developed or tested.
- Exploratory testing is not a test technique used by testers during informal code reviews to find defects by exploring the source code, but rather a test technique used by testers during dynamic testing to find defects by exploring the behavior and performance of the software system, without examining the source code. Informal code reviews are static testing techniques, in which the source code is analyzed by one or more reviewers, without following a formal process or using a checklist, to identify defects, violations, or improvements. Informal code reviews are usually performed by developers or peers, not by testers.
- In exploratory testing, testers usually do not produce scripted tests and establish bidirectional traceability between these tests and the items of the test basis, but rather produce unscripted tests and adapt them based on the feedback and the findings of the testing process. Scripted tests are tests that are designed and documented in advance, with predefined inputs, outputs, and expected results, and are executed according to a test plan or a test procedure. Bidirectional traceability is the ability to trace both forward and backward the relationships between the items of the test basis, such as the requirements, the design, therisks, etc., and the test artifacts, such as the test cases, the test results, the defects, etc. Scripted tests and bidirectional traceability are usually associated with more formal and structured testing approaches, such as specification-based or structure-based test techniques, not with exploratory testing. References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents:
- ISTQB® Certified Tester Foundation Level Syllabus v4.0, Chapter 2.2.3, Experience-based Test Design Techniques1
- ISTQB® Glossary of Testing Terms v4.0, Exploratory Testing, Session-based Testing, Session Sheet, Non Testable Requirement, Static Testing, Informal Review, Dynamic Testing, Scripted Testing, Bidirectional Traceability2

5.Consider the following simplified version of a state transition diagram that specifies the behavior of a

video poker game:



What Is the minimum number of test cases needed to cover every unique sequence of up to 3 states/2 transitions starting In the "Start" state and ending In the "End" state?

A. 1

B. 2

C. 3

D. 4

Answer: D

Explanation:

The minimum number of test cases needed to cover every unique sequence of up to 3 states/2 transitions starting in the “Start” state and ending in the “End” state is 4.

This is because there are 4 unique sequences of up to 3 states/2 transitions starting in the “Start” state and ending in the “End” state:

- Start -> Bet -> End
- Start -> Deal -> End
- Start -> 1st Deal -> End
- Start -> 2nd Deal -> End

References: ISTQB Certified Tester Foundation Level (CTFL) v4.0 sources and documents.