This exam should be completed in 60 minutes.

Question #1 (1pt)
What is the test basis?

a. The point during software development when testing should start  
b. The body of knowledge used for test analysis and design  
c. The source to determine the actual results from a set of tests  
d. The method used to systematically devise test conditions

Question #2 (1 pt)
When the tester verifies the test basis while designing tests early in the lifecycle, which common test objective is being achieved?

a. Gaining confidence  
b. Finding defects  
c. Preventing defects  
d. Providing information for decision making

Question #3 (1 pt)
When following the fundamental test process, when should the test control activity take place?

a. During the planning activities  
b. During the implementation and execution activities  
c. During the monitoring activities  
d. During all the activities

Question #4 (1 pt)
Which of the following is a correct statement?

a. A developer makes a mistake which causes a defect that may be seen as a failure during dynamic testing  
b. A developer makes an error which results in a failure that may be seen as a fault when the software is executed  
c. A developer has introduced a failure which results in a defect that may be seen as a mistake during dynamic testing  
d. A developer makes a mistake which causes a bug that may be seen as a defect when the software is executed

Question #5 (1 pt)
Which of the following is an example of debugging?

a. A tester finds a defect and reports it  
b. A tester retests a fix from the developer and finds a regression
c. A developer finds and fixes a defect

d. A developer performs unit testing

Question #6 (1 pt)

Which of the following is a true statement about exhaustive testing?

a. It is a form of stress testing
b. It is not feasible except in the case of trivial software
c. It is commonly done with test automation
d. It is normally the responsibility of the developer during unit testing

Question #7 (1 pt)

A new retail product was released to production by your company. Shortly after the release it was apparent that there were numerous problems with the point of sale application. This resulted in a number of customer complaints and negative postings on social media encouraging people to take their business to your competitor. You have investigated the problems and have discovered that the production point of sale equipment is a later model than the model used in testing. The software functions correctly on the old version, but fails on the later model.

Given this scenario, what is the root cause and what is the effect?

a. The root cause is the old equipment and the effect is the new equipment
b. The root cause is the customer complaints and the effect is the social media postings
c. The root cause is conducting the testing on the wrong version of the equipment and the effect is the customer complaints and postings
d. The root cause is the software failing on the later model and the effect is the customer complaints

Question #8 (1 pt)

If you need to provide a report showing test case execution coverage of the requirements, what do you need to track?

a. Traceability between the test cases and the requirements
b. Coverage of the risk items by test case
c. Traceability between the requirements and the risk items
d. Coverage of the requirements by the test cases that have been designed

Question #9 (1 pt)

Which of the following is most correct regarding the test level at which functional tests may be executed?

a. Unit and integration
b. Integration and system
c. System and acceptance  
d. All levels  

Question #10 (1 pt)  
Which of the following is a true statement regarding the V-model lifecycle?  

a. Testing involvement starts when the code is complete  
b. The test process is integrated with the development process  
c. The software is built in increments and each increment has activities for requirements, design, build and test  
d. All activities for development and test are completed sequentially  

Question #11 (1 pt)  
Usability testing is an example of which type of testing?  

a. Functional  
b. Non-functional  
c. Structural  
d. Change-related  

Question #12 (1 pt)  
What type of testing is normally conducted to verify that a product meets a particular regulatory requirement?  

a. Unit testing  
b. Integration testing  
c. System testing  
d. Acceptance testing  

Question #13 (1 pt)  
You have been receiving daily builds from the developers. Even though they are documenting the fixes they are including in each build, you are finding that the fixes either aren’t in the build or are not working. What type of testing is best suited for finding these issues?  

a. Unit testing  
b. System testing  
c. Confirmation testing  
d. Regression testing  

Question #14 (1 pt)  
In a formal review, which role is normally responsible for documenting all the open issues?
a. The facilitator
b. The author
c. The scribe
d. The manager

**Question #15 (1 pt)**

Which testing technique would be most effective in determining and improving the maintainability of the code (assuming developers fix what is found)?

a. Peer reviews
b. Static analysis
c. Dynamic testing
d. Unit testing

**Question #16 (1 pt)**

For a formal review, at what point in the process are the entry and exit criteria defined?

a. Planning
b. Review initiation
c. Individual review
d. Fixing and reporting

**Question #17 (1 pt)**

If the author of the code is leading a code review for other developers and testers, what type of review is it?

a. An informal development review
b. A walkthrough
c. An inspection
d. An audit

**Question #18 (1 pt)**

You are participating in a role-based review session. Your assigned role is that of a senior citizen. The product is an online banking application that is targeted for use on smart phones. You are currently reviewing the user interface of the product with a prototype that works on iPhones. Which of the following is an area that you should review?

a. The speed of response from the banking backend
b. The attractiveness of the application
c. The size and clarity of the instruction text
d. The reliability of the application when the connection is dropped

**Question #19 (1 pt)**
Which of the following is an extension of equivalence partitioning?

a. Decision tables
b. Decision testing
c. Boundary value analysis
d. State transition testing

Question #20 (1 pt)
If test cases are derived from looking at the code, what type of test design technique is being used?

a. Black-box
b. White-box
c. Specification-based
d. Behavior-based

Question #21 (1 pt)
Which of the following is a good reason to use experience-based testing?

a. You can find defects that might be missed by more formal techniques
b. You can test for defects that only experienced users would encounter
c. You can target the developer’s efforts to the areas that users will be more likely to use
d. It is supported by strong tools and can be automated

Question #22 (1 pt)
If you are using error guessing to target your testing, which type of testing are you doing?

a. Specification-based
b. Structure-based
c. Experience-based
d. Reference-based

Question #23 (1 pt)
If you are testing a module of code, how do you determine the level of decision coverage you have achieved?

a. By taking the number of decisions you have tested and dividing that by the total number of executable statements in the module
b. By taking the number of decisions you have tested and dividing that by the total number of decisions in the module
c. By taking the number of decisions you have tested and dividing that by the total lines of code in the module
d. By taking the number of decision outcomes you have tested and dividing that by the total number of decision outcomes in the module
Question #24 (1 pt)

Which of the following best describes the behaviors defined in a use case that should be covered by tests?

a. Positive path and negative path  
b. Basic, exception and error  
c. Normal, error, data, and integration  
d. Control flow, data flow and decision paths

Question #25 (1 pt)

You are testing a machine that scores exam papers and assigns grades. Based on the score achieved the grades are as follows: 1-49 = F, 50-59 = D-, 60-69 = D, 70-79 = C, 80-89 = B, 90-100=A  
If you apply equivalence partitioning, how many test cases will you need to achieve minimum test coverage?

a. 6  
b. 8  
c. 10  
d. 12

Question #26 (1 pt)

You are testing a machine that scores exam papers and assigns grades. Based on the score achieved the grades are as follows: 1-49 = F, 50-59 = D-, 60-69 = D, 70-79 = C, 80-89 = B, 90-100=A  
If you apply two-value boundary value analysis, how many test cases will you need to achieve minimum test coverage?

a. 8  
b. 10  
c. 12  
d. 14

Question #27 (1 pt)

You have been given the following conditions and results from those condition combinations. Given this information, using the decision table technique, what is the minimum number of test cases you would need to test these conditions?

<table>
<thead>
<tr>
<th>Conditions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid cash</td>
</tr>
<tr>
<td>Valid credit card</td>
</tr>
<tr>
<td>Valid debit card</td>
</tr>
<tr>
<td>Valid pin</td>
</tr>
<tr>
<td>Bank accepts</td>
</tr>
<tr>
<td>Valid Selection</td>
</tr>
</tbody>
</table>

Version 1.0  Page 7 of 11  August 18, 2018
© American Software Testing Qualifications Board
<table>
<thead>
<tr>
<th>Item in Stock</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Results:</strong></td>
</tr>
<tr>
<td>Reject Cash</td>
</tr>
<tr>
<td>Reject Card</td>
</tr>
<tr>
<td>Error Message</td>
</tr>
<tr>
<td>Return Cash</td>
</tr>
<tr>
<td>Refund Card</td>
</tr>
<tr>
<td>Sell Item</td>
</tr>
</tbody>
</table>

a. 7  
b. 13  
c. 15  
d. 18

**Question #28 (1 pt)**

You have been given the following requirement:

A user must log in to the system with a valid username and password. If they fail to enter the correct combination three times, they will receive an error and will have to wait 10 minutes before trying again. The test terminates when the user successfully logs in.

How many test cases are needed to provide 100% state transition coverage?

a. 1  
b. 2  
c. 4  
d. 5

**Question #29 (1 pt)**

You are testing a thermostat for a heating/air conditioning system. You have been given the following requirements:

- When the temperature is below 70 degrees, turn on the heating system
- When the temperature is above 75 degrees, turn on the air conditioning system
- When the temperature is between 70 and 75 degrees, inclusive, turn on fan only

Which of the following is the minimum set of test temperature values to achieve 100% two-value boundary value analysis coverage?

a. 70, 75  
b. 65, 72, 80  
c. 69, 70, 75, 76  
d. 70, 71, 74, 75, 76

**Question #30 (1 pt)**
A metric that tracks the number of test cases executed is gathered during which activity in the test process?

a. Planning  
b. Implementation  
c. Execution  
d. Reporting

Question #31 (1 pt)

Who is normally responsible for the creation and update of a test plan for a project?

a. The project manager  
b. The test manager  
c. The tester  
d. The product owner

Question #32 (1 pt)

Which of the following variances should be explained in the Test Summary Report?

a. The variances between the weekly status reports and the test exit criteria  
b. The variances between the defects found and the defects fixed  
c. The variances between what was planned for testing and what was actually tested  
d. The variances between the test cases executed and the total number of test cases

Question #33 (1 pt)

Which of the following is a project risk?

a. A module that performs incorrect calculations due to a defect in a formula  
b. A failed performance test  
c. An issue with the interface between the system under test and a peripheral device  
d. A problem with the development manager which is resulting in his rejecting all defect reports

Question #34 (1 pt)

Which of the following is a benefit of test independence?

a. Testers have different biases than developers  
b. Testers are isolated from the development team  
c. Testers lack information about the test object  
d. Testers will accept responsibility for quality

Question #35 (1 pt)

You are working in a team of testers who are all writing test cases. You have noticed that there is a
significant inconsistency with the length and amount of detail in the different test cases. Where should the test case guidelines have been documented?

a. The test plan  
b. The test approach  
c. The test case template  
d. The project plan

**Question #36 (1 pt)**

Which of the following is an example of a good exit criterion from system testing?

a. All tests should be completed  
b. The project budget should be spent  
c. All defects should be fixed  
d. All severity 1 defects must be resolved

**Question #37 (1 pt)**

You have received the following description section in a defect report:

The report executed per the attached steps, but the data was incorrect. For example, the information in column 1 was wrong. See the attached screenshot. This report is critical to the users and they will be unable to do their jobs without this information.

What is the biggest problem with this defect report?

a. The developer won’t know how important the problem is  
b. The developer won’t know how to repeat the test  
c. The developer won’t be able to see what the tester is saying is wrong  
d. The developer won’t know what the tester expected to see

**Question #38 (1 pt)**

You have been given the following set of test cases to run. You have been instructed to run them in order by risk and to accomplish the testing as quickly as possible to provide feedback to the developers as soon as possible. Given this information, what is the best order in which to run these tests?

<table>
<thead>
<tr>
<th>Test Case ID</th>
<th>Duration</th>
<th>Risk Priority</th>
<th>Dependency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30 mins</td>
<td>Low</td>
<td>6</td>
</tr>
<tr>
<td>2</td>
<td>10 mins</td>
<td>Medium</td>
<td>none</td>
</tr>
<tr>
<td>3</td>
<td>45 mins</td>
<td>High</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>30 mins</td>
<td>High</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>10 mins</td>
<td>Medium</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>15 mins</td>
<td>Low</td>
<td>2</td>
</tr>
</tbody>
</table>

a. 2, 4, 5, 6, 1, 3  
b. 4, 3, 2, 5, 6, 1  
c. 2, 5, 6, 4, 1, 3
d. 6, 1, 3, 2, 4, 5

Question #39 (1 pt)

Why is it important to define usage guidelines for a new tool?

a. Because this is a proven success factor in tool deployment
b. Because this will ensure the licensing restrictions are enforced
c. Because management needs to understand the details of the tool usage
d. Because this will provide the information needed for the cost/benefit analysis

Question #40 (1 pt)

Which of the following is an example of a tool that supports static testing?

a. A tool that assists with tracking the results of reviews
b. A defect tracking tool
c. A test automation tool
d. A tool that helps design test cases for security testing