## Sample Exam

## **Certified Tester Foundation Level**

## **Answer Table**

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American Software Testing Qualifications Board



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## **ASTQB Certified Tester Foundation Level Sample Exam Answer Key**

40 possible points. 26 required to pass (65%).

Question	Answer	Rationale	Learning Objective (LO)	Number of Points
1	С	C is correct. Debugging is the process of finding, analyzing and removing the causes of failures in software. A and B are incorrect because they will find the failure caused by a defect. D is incorrect. Reverse engineering is a process for determining the source code from the object code.	Keyword	1
2	D	D is correct, per syllabus. Start with collaboration rather than battles and remind everyone that it is a common goal to build better quality systems. A and B are incorrect because this type of escalation is inappropriate. C is incorrect as it is the opposite approach to take because blame placing is not going to build a better team or product.	FL-1.5.1	1
3	В	B is correct. Software testing may be required to meet contractual requirements and commitments and penalties are sometimes assessed when quality goals are not met. A is not correct because lawsuits, unfortunately, are not limited. C is not correct because there are not international laws covering all exported products. D is not correct because cross system testing may occur within an organization and require no legal documentation.	FL-1.2.1	1
4	A	A is correct. Root cause analysis can determine common causes of issues. Addressing these common causes by process improvement can increase quality. B is incorrect because root cause analysis will not make the developers code faster, better maybe, not faster. C is incorrect because root causes generally are not good things that should be transferred between teams. D is not correct because it will not improve funding.	FL-1.2.2	1
5	D	D is correct. As tests are run repeatedly, the pesticide (the tests) become less effective. A is not correct because dynamic testing should be used and helps to alleviate the pesticide paradox. B doesn't actually make sense. C is not	FL-1.3.1	1

Question	Answer	Rationale	Learning Objective (LO)	Number of Points
		correct because testing should be context dependent.		
6	A	A is correct. Test monitoring involves the ongoing comparison of actual progress against the test plan. B is incorrect because it defines testing objectives. C is incorrect because the activities have already completed and the project is closing down. D is incorrect because test control is when you take actions to correct any issues observed during monitoring.	FL-1.4.2	1
7	D	D is correct. The error or the mistake made by the developer causes a defect in the code. When that code is executed, a failure can be observed.	FL-1.2.3	1
8	В	B is correct. This normally occurs during debugging.	FL-1.1.2	1
9	D	D is correct. Non-functional tests can and should be executed at all levels of testing.	FL-2.3.2	1
10	С	C is correct, per syllabus. Data migration to another system or data migration to an archival system may be needed. A is incorrect, there is no such testing type. B is incorrect because this is more appropriate for current systems, not the system being retired. D is incorrect because this is of no use for a system being retired.	FL-2.4.1	1
11	A	A is correct, per syllabus. By definition, regression testing is looking for areas in which the system may have regressed (gone backwards). B is incorrect as the purpose of regression is not to monitor malicious or erroneous activities by the developers. C is incorrect as it is not in scope of regression testing but would be a consideration for the impact analysis. D is incorrect because regression testing will not identify maintainability issues – that will have to be done via static analysis or specific maintainability tests.	FL-2.4.2	1
12	A	A is correct. For any lifecycle model, this is a correct statement. B is not correct because some testing activities may not produce documentation, such as reviews. C is not correct because test cases are not always written, particularly in an Agile lifecycle (which is an iterative lifecycle) where only exploratory testing might be used. D is not correct because not all testing activities produce metrics (such as test case creation, reviews, etc.) and, even if they did, not all stakeholders would be interested in those metrics.	FL-2.1.1	1
13	В	B is correct. Use cases are a good test basis for system testing because they include end-to-end	FL 2.2.1	1

Question	Answer	Rationale	Learning Objective (LO)	Number of Points
		transaction scenarios. A is not correct because unit testing concentrates on individual components, not transactions. C and D are not testing levels.		
14	D	D is correct, per syllabus. A, B and C are all forms of dynamic testing.	FL-3.1.1	1
15	A	A is correct, per syllabus. Static analysis with a static analyzer can be used to find defects such as uninitialized variables that could be difficult to catch with dynamic testing. B is incorrect because defects will still need to be documented regardless of how early they are found. C is incorrect because this is dynamic analysis. D is incorrect because static analysis usually requires the use of tools.	FL-3.1.2	1
16	D	D is correct. Dynamic testing is done while the software is actually running whereas static testing depends on examining the software while it is not running. A is not correct because both types of testing can be done by both developers and testers. B is not correct because manual and automated tests can be used for dynamic testing. C is not correct because static testing can occur at any time although it is usually done before dynamic testing.	FL-3.1.3	1
17	В	B is correct. In a walkthrough, the author normally leads the review session. A is not correct as this is not normally an organized session. C is not correct because an inspection is normally led by the facilitator (moderator). D is not correct because an audit is usually led by a third party.	FL-3.2.3	1
18	С	C is correct. This review should be conducted with checklist guidance with the checklist including security vulnerabilities. A is not correct because this will not provide the needed guidance. B is not correct because the roles are not a concern – even the hacker role – compared to checking the vulnerabilities. D is not correct because the concern is about the security vulnerabilities, not the functionality of the product.	FL-3.2.4	1
19	Α	A is correct, per syllabus. B and C are not testing techniques. D is not possible unless the code is trivial and is not an experience-based technique.	Keyword	1
20	В	B is correct, per syllabus. Black-box testing is based off the requirements documents. A and C are incorrect because these use the structure of the software as the test basis. D is incorrect because exploratory testing is often done when	FL-4.1.1	1

Question	Answer	Rationale	Learning Objective (LO)	Number of Points
		there is no specification, thus giving the tester the opportunity to learn about the software while testing.		
21	D	D is correct, per syllabus. A, B and C are not valid measures.	FL-4.3.1	1
22	В	B is correct. A simple IF statement will be composed of If then else end if. There are two decision outcomes, one for the result of the If being true and one for it being false. Since 100% decision coverage requires at least one test case for each decision outcome, two tests are needed. A and C are incorrect because these are the wrong numbers of tests. D would be correct if this weren't defined as a simple if statement because a complex if statement could include more than two outcomes.	FL-4.3.2	1
23	A	A is correct. Error guessing is a technique used to anticipate where developers are likely to make errors and to create tests to cover those areas. B, C and D are not correct.	FL-4.4.1	1
24	В	B is correct. This is often called session-based testing and may use session sheets. A is not correct. Exploratory doesn't usually comply to schedules but rather allows the tester to explore and learn about the software. Coverage is difficult to assess which is one of the reasons it is difficult to match the time spent to the amount accomplished. C is not correct. This may be one of the forms of risk-based testing, but it is not entirely RBT. D is not correct as this is not actually a testing term.	FL-4.4.2	1
25	С	C is correct. You need a partition for each of the 4 classes and one for a zero or negative weight.	FL-4.2.1	1
26	С	C is correct. 2 per valid weight range plus one for a negative weight and one for a weight exceeding 100 lbs (-1, 0, 10, 11, 25, 26, 50, 51, 100, 101).	FL-4.2.2	1
27	В	B is correct. A is not correct because it assumes you can't add and delete items from a burger. C is not correct because it makes the same assumption as A and has duplicate tests. D is not correct because the Results are wrong for the first four tests.	FL-4.2.3	1
28	С	C is correct. There are 8 transitions that should be shown in the state transition diagram as explained in the question. A is not correct as this is only checking one transition from each state. B is not correct because this is probably excluding login > login and search > search. D is not correct because it is checking the invalid	FL-4.2.4	1

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		transitions as well and those would be included in a state table, not a state transition diagram. These are:		
		<ol> <li>Login (invalid) &gt; Login</li> <li>Login &gt; Search</li> <li>Login &gt; Shopping Cart (invalid transition)</li> <li>Login &gt; Checkout (invalid transition)</li> <li>Search &gt; Login (invalid transition)</li> <li>Search &gt; Search</li> <li>Search &gt; Shopping Cart</li> <li>Search &gt; Checkout (invalid transition)</li> <li>Shopping Cart &gt; Login (invalid transition)</li> <li>Shopping Cart &gt; Search</li> <li>Shopping Cart &gt; Shopping Cart (invalid transition)</li> <li>Shopping Cart &gt; Checkout</li> <li>Checkout &gt; Login (invalid transition)</li> <li>Checkout &gt; Search</li> <li>Checkout &gt; Shopping Cart (invalid transition)</li> <li>Checkout &gt; Shopping Cart (invalid transition)</li> <li>Checkout &gt; Logout</li> </ol>		
29	D	D is correct. The values to be tested are 20, 100, 500 and no selection.	FL-4.2.1	1
30	A	A is correct. The combination of likelihood and impact is normally used to determine the overall risk level (sometimes called the risk priority number).	FL-5.5.1	1
31	С	C is correct. Writing and updating the test plan is normally the responsibility of the test manager.  A, B and D may contribute to the test plan, but the overall responsibility belongs to the test manager.	FL-5.1.2	1
32	С	C is correct. This is the biggest problem. A and B are not necessarily true – some developers are good testers and have a good quality focus. D is not correct because unit testing is part of their job and time should be made in the schedule for at least unit testing.	FL-5.1.1	1
33	D	D is correct, this is a risk to the entire project. A, B and C are product risks.	FL-5.5.2	1
34	С	C is correct. When tests are derived from a systematic use of a preset list of quality characteristics, this is a methodical strategy. A is not correct because this is not a regulation. B is not correct because it is based off the predefined list rather than an analysis. D is not correct because it is not responding to the	FL-5.2.2	1

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		software's behavior, but rather following something that is already defined.		
35	Α	A is correct. Configuration management is missing if the code is not being properly versioned and tracked.	FL-5.4.1	1
36	С	C is correct. In this case, you should have access to the effort that was required on the previous version of the ERP system and you should be able to use that information to predict the effort for this release. A and D are not correct because these are not estimation techniques. B is not correct because it's better to use internal metrics.	FL-5.2.6	1
37	D	D is correct. This is not likely to happen, so the urgency to fix it is low but it does crash the system so the impact to the system is high so the severity should be high.	FL-5.6.1	1
38	В	B is correct. The goal is to run the highest priority tests as soon as possible. Dependency has to be considered in order for the tests to actually be executed. In order to get the highest priority test run as soon as possible, the correct order is as follows: test 1 has to go first since everything else is dependent on it. Then we need to do 2 so we can do 4 and 5 (the highest priority test) and then 3 is last because 5 is not dependent on it. A is not correct because 5 cannot be run first. C is not correct because it does not run 5 as soon as possible; it defers it until after 3 is run. D is not correct because 3 can't be run first as it requires 1 and 2.	FL-5.2.4	1
39	С	C is correct. Learn more about the tool, evaluate the fit in the organization, decide on standard usage and assess benefits to be achieved are all objectives for a pilot project.	FL-6.2.2	1
40	Α	A is correct. This is the primary purpose of the test execution tools. B may be something the tool can do, but this is not the primary purpose. C is a static analysis tool and D is a test management tool.	FL-6.1.3	1