Sample Exam
ISTQB Advanced Test Analyst
Answers

Exam Prepared By

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Question	Answer	Explanation / Rationale	Learning Objective (LO)	Number of Points
1	A	A is correct. Planning for the resources should occur during the planning stages and should be recorded in the test plan. B, C and D are too late.	TA-1.3.1	1
2	B	B is correct. This information can be used to monitor the project, determine trends and contribute to process improvement. A and C are both activities that should occur during the Planning phases of the project. D is a testing task that the TA performs as part of project testing.	TA-1.3.1	1
3	C	C is correct. Concrete test cases (with detailed steps and defined data) should be used for the inexperienced testers who will be running the regression tests. Logical or high-level test cases should be used for UAT because this will allow the business users to vary the steps and data within the tests but will still provide documented test cases.	TA-1.5.2	3
4	B	B is correct. The exit criteria determine when testing is done. A is not correct because the exit criteria don't define priorities, just goals to be met. C is not correct because the scope is defined by the exit criteria. D is not correct because human analysis is still needed.	TA-1.8.1	1
5	C	C is correct. 9 of the 10 test cases have been executed. Execution does not mean they have passed. The only test excluded is the one that is still in progress.	TA-1.8.1	1
6	D	D is correct. The 25 test cases that "passed with exception" may be harboring significant defects even though the test case functionality has "passed". These test execution results will need to be researched to determine if the test cases should be considered "passed" or "failed" for the exit criteria. A is not correct because some number of the "passed with exception" cases should probably be classified as "passed". B is not correct because some number of the "passed with exception" cases should probably be classified as "failed". C is not correct, although it's a really good point and risk should also be a factor in evaluating exit criteria. Risk assessment was not stated in the exit criteria though, so it is not a factor with this answer.	TA-1.8.1	1
7	C	C is correct. This is an example of the software doing something that is not specified in the requirements and should be documented as an issue. A is not correct because the tester can't assume that the feature should be there if it's not specified. B is not correct because	TA-1.7.1	2

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		the test case is correct per the requirements. D is not correct because this should be documented and investigated to see if it's a defect, not a note in the test case.		
8	A	A is correct. Agile models require the earliest involvement from the TA. B requires activity from the TA as soon as the requirements documents are ready for review. C is an iterative model within a V-model, so it works the same as B for the moment of involvement. D is usually the latest involvement, often not happening until the code is written.	TA-1.2.1	1
9	C	C is correct. Risk and priority assignment occur during test design as the test cases are designed to test particular test conditions. The test cases are ordered for execution, often based on priority/risk, during the Test Implementation step.	TA-1.6.1	1
10	A	A is correct. This information is often turned over to the support and maintenance groups to help them with understanding the known defects and workarounds for those defects. B and C should be input to the Analysis activities. D should be an output from the Analysis activities and an input to the Design activities.	TA-1.9.1	1
11	B	B is correct. This risk needs to be raised to the Test Manager because this is potentially a serious issue. You should also work on mitigation approaches, probably with the Test Manager. A is not correct because if anyone pushes back on the CCB, it should be the Test Manager. C is not correct because you're in the final cycle of testing so you won't have any benefit from re-prioritizing tests you've already run. D is not correct because this would result in not meeting the schedule and that may not be acceptable.	TA-2.4.1	2
12	C	C is correct. This is breadth-first because it is testing across all areas while looking at the priorities within each area. A is depth-first (pure priority order). B is reverse priority order. D covers breadth, but doesn't consider priorities within the areas (U2 should come before U1).	TA-2.4.1	2
13	B	B is a good communication practice that utilizes tools to ensure everyone has access to the information they need. A is not a good practice because it often leaves the offshore team with software or environments that aren't working. C is not a good practice because timezone differences may make conference calls inefficient and it is not a good use of tools. D is not correct because this won't facilitate communication.	TA-2.3.1	1
14	D	D is correct. There are 5 partitions you need to test. Invalid too low, $1 - $100, $101 - $500, >$500 and invalid too high (if possible).	TA-3.2.2	2
15	D	D is correct. This provides one test for the invalid low	TA-3.2.2	2

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		partition (too few characters), one for the valid partition, and one for the invalid high partition (too many characters). Note, the question specifies "characters" so any alphanumeric or special characters could be used in the answer. A has two tests in the valid partition. B tests the boundaries, but has two tests in the valid partition. C has two tests in the invalid too low partition (too few characters). The negative value doesn't matter.		
16	C	C is correct. The only equivalence partition is for three day combinations with two or more rainy days. There are 7 of these possible (rainy, rainy, sunny/cloudy; rainy, sunny/cloudy, rainy; sunny/cloudy, rainy, rainy; rainy, rainy, rainy). All other combinations must be tested. There are 27 total combinations. Of these, 7 are the same so only one has to be tested. As a result you need 20 test cases for the other combinations and 1 test case for the 2+ rainy days). Within these 21 tests, only one will have no water, so the 5 combinations of spray types can be tested within the 21 tests for the weather combinations that result in water.	TA-3.2.2	2
17	D	D is correct. This covers all the boundaries with two-value coverage. The boundaries to consider are 0, 1, 100, 500, and max spend (which might push the max integer value and cause corruption).	TA-3.2.3	2
18	C	C is correct. You will need to test 74%, 75%, 76%, 84%, 85%, 86%, 94%, 95%, 96% to achieve 100% three-value boundary coverage.	TA-3.2.3	2
19	B	B is correct. This provides one test for the value just over the lower boundary (2 characters), one for the lower boundary (3 characters), one for the upper boundary (10 characters) and one for just over the upper boundary (11 characters). Note, the question specifies "characters" so any alphanumeric or special characters could be used in the answer. A has two tests in the valid partition. C doesn't address the lower boundaries at all and just includes the value over the upper boundary. D includes the values outside the boundaries, but not the boundaries themselves.	TA-3.2.3	2
20	C	C is correct. There are 16 columns required in the full decision table. (see table A). The collapsed decision table requires 6 columns. (see table B). Please note, the use of the tildas indicates that any value could be there – it doesn't affect the test. Also remember there are multiple ways to collapse a table so if different columns were collapsed, that can be right too as long as the logic is followed. Testers always make assumptions on collapsing a table. When reading the collapsed table:	TA-3.2.4	2

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		1 is not needed, can't take both credit and debit 2 is not needed, can't take both credit and debit 3 is not needed, can't take both credit and debit 4 is not needed, can't take both credit and debit 5 is not needed, credit cards don't require a PIN 6 is needed, covers valid credit card, insufficient funds 7 is needed, covers valid credit card, sufficient funds 8 is not needed, covered by 6 9 is needed, covers valid debit card, sufficient funds 10 is needed, covers valid debit card, insufficient funds 11 is needed, covers valid debit card, invalid PIN, funds don't matter 12 is not needed, covered by 11 13, 14, 15 are all covered by 16 16 covers both cards invalid		
21	D	D is correct. You have to check that the length is valid (3-10) and you need to know if it's >8. You also need to check the characters in the password. A is not correct because it doesn't check the characters and doesn't check for a password that is 9 or 10 characters. B is not correct because it can't differentiate between a password that is too long and one that is valid but more than 8 characters. C is not correct because it is mixing conditions and results.	TA-3.2.4	2
22	B	B is correct. The errors that can occur are either that the password is the wrong length or that they didn't enter the right mix of characters. The proper symbol should be displayed depending on the combination of input characters. A symbol is only displayed if the password is valid, so no special result of valid password is needed. A is not correct because it doesn't define the reason for the invalid password and doesn't consider the symbols. C is not correct because these should be Boolean values so there is no need for valid length and invalid length. A "no" on one will always be a "yes" on the other. It also doesn't makes sense to indicate which characters are missing since that information as already supplied in the conditions – it's not the outcome of the decision. D is not correct because the length is a condition, not a decision result. It is also not a good practice to use a non-boolean for the symbol displayed.	TA-3.2.4	2
23	C	C is correct. These are the correct labels for the columns on a state transition table.	TA-3.2.5	2
24	C	C is correct. 8 test cases are required, one for each row in the table. Since this is 0-switch coverage, only one transition is being tested, one event to move from a start state to an end state.	TA-3.2.5	2

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25	B	B is correct. It shows both state transitions, one for a valid combination of username/password, and one for an invalid combination. A is not correct because it doesn't show the transition for an invalid combination. C is not correct because the question states that it just wants the transitions from the Login state. D is not correct for the same reason and it duplicates the first transition. A state transition table should not have duplicate rows.	TA-3.2.5	2
26	B	B is correct. 12 test cases are needed. The longest list (4) multiplied by the second longest (3) gives the answer needed. Table C shows the table that would be generated from a full pairwise expansion.	TA-3.2.6	2
27	B	B is correct per the following table: 1 1 1 2 1 2 3 1 1 1 2 2 2 2 1 3 2 2 Pairwise coverage means that each pairing of options is covered. In this case, the first column represents the 3 options for color. In column 1 and 2, all combinations of those two values are created. In columns 2 and 3, all combinations of brand and slot are covered. In columns 1 and 3, all combinations of color and slot are covered.	TA-3.2.6	2
28	A	A is correct. Singleton coverage means that each item must be represented at least once. By using the number for the largest set of options, you are guaranteed that everything can be used once.	TA-3.2.6	2
29	C	C is correct. Classification trees provide a graphical representation of the combinations and allow the user to see how the test values are derived. A and D are not graphical techniques. B is not real.	TA-3.2.7	2
30	B	B is correct. EP is often used to limit the options to create a reasonable number of nodes for the tree from all possible options, which could be very large.	TA-3.2.7	2
31	A	A is correct. Pairwise coverage will be achieved if each of the 9 test cases are run. Singleton coverage will also be achieved because each item will be tested at least once.	TA-3.2.7	2
32	C	C is correct. Alternate paths should be tested individually if possible because this limits the risk of masking a defect. A is not correct because 100% coverage has not been achieved because the alternate paths were tested together. B is not correct because	TA-3.2.8	2

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		step 1 is not needed if step 1a is executed. D is not correct because test case 2 does cover all the alternate paths, but does them in one test case.		
33	C	C is correct. A minimum of 5 cases are needed, one for the main path and one for each alternate path (1a, 3a, 4a, 6a). In reality, a good tester would have many more test cases than 5. You could test several of the alternate paths together, but then there is the risk of masking a failure. It's safer, when going for minimum coverage, to test each alternate path separately. For example, testing 1, 2, 3a, 3b, 3c, 4, 5, 6, 7.	TA-3.2.8	2
34	A	A is correct. 5 tests are needed for minimum coverage and only 2 of those have been executed.	TA-3.2.8	2
35	C	C is correct. The problem seems to be occurring with 3 transitions, which will be tested with 2-switch testing. D is not correct because invalid transitions don't seem to be the problem. The problem seems to be with not allowing valid transitions.	TA-3.2.11	3
36	B	B is correct. BVA will be needed to ensure all the monetary transactions are handled properly, particularly with regards to rounding. A classification trees are applicable for non-interacting conditions. This question is dealing with determining accurate amounts based on rounding and transfer information. C is not correct because there is no indication that states are used in the wire transfers. D is not correct because there are no business rules cited in the question that would indicate that decision tables would be needed.	TA-3.2.11	3
37	C	C is correct. Decision tables would be the best approach because there are numerous rules embedded in the software. The other techniques may be useful for other parts of the software, but the example shown in the question would be best tested with decision tables.	TA-3.2.11	3
38	C	C is correct. Experience-based techniques can be used to fill in the gaps of incomplete specifications. Exploratory testing is frequently used in this capacity. A is not correct because experience-based techniques should be used by experienced testers. B is not correct because these techniques work well to fill in the gaps of other techniques that are applied when there are good requirements. D is not correct. Experience-based techniques tend to give poor coverage and traceability information.	TA-3.4.1	1
39	A	A is the most correct charter. It explains what areas to test and then specifies the valid and invalid card usage. This test session will result in some coverage information and could support traceability back to the requirements for credit and debit card handling. B and D are too vague to be useful. C doesn't really make sense because removing items after you buy them may	TA-3.4.2	2

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		not be allowed and it specifies steps rather than the purpose of the testing.		
40	D	D is correct. Checklist testing would be the most suitable because you already have the outline of what you want to test and that can easily be made into a checklist for these experienced users who will be doing the testing. A is not correct because there is nothing in the question about known error patterns or scenarios. B is not correct because the testing will use the existing test cases for guidelines allowing the user to determine the data and steps, but within the confines of the existing test cases. C is not correct because there are no use cases but if there were they would have the steps defined.	TA-3.4.3	3
41	A	A is the best choice here because you are concerned with the boundaries of the allowed purchase limits and it's likely that equivalence partitions may be helpful as well. Domain analysis gives you both BVA and EP. B would not be helpful because there are no states being transitioned here. C is not the best choice. Although decisions are being made, concentration around the particular values is needed and that will be covered better by A. D is not correct because, while error guessing might be useful, it is not the best technique.	TA-3.4.3	3
42	B	B is correct. Given that there are a large number of known defect areas, it makes sense to create a taxonomy and conduct defect-based testing. A would make sense if the concentration were on known failure areas, but it's concentrating on heavy usage areas, which may or may not be high risk. C is not correct for the primary testing, although it might be useful for regression testing. D is not correct because that is not what pairwise testing does.	TA-3.4.3	3
43	A	A is correct. 5 test cases should pass and 10 should fail as shown in table D below.	TA-3.2.10	2
44	A	A is correct. A cause-effect graph is a graphical presentation of decision information that can be contained in a decision table.	TA-3.2.1	1
45	D	D is correct. The acceptance criteria are used to measure coverage of a story. Of course, the accuracy of this method depends on how well the acceptance criteria have been defined.	TA-3.2.9	1
46	D	D is correct. With interoperability testing it is likely that many combinations of environments will need to be tested and these should not influence the behavior of the software in an adverse way. Combinatorial testing is well suited for this. A might be used, but would likely only be used as a final check, not a primary technique. B is not applicable since it concentrates more on EP and BVA combinations. C may be useful, but only if there is a taxonomy available from prior interoperability	TA-4.2.1	1

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		testing.		
47	A	A is correct. Given that this is your first day, you first need to figure out what the software should do. After you know that, B would make sense to clarify what the customer is expecting. C and D will take too long.	TA-4.2.4	3
48	D	D is correct. 1 is a test for syntax (what can be entered in an input field). 5 is a test for semantics (reasonable and meaningful error message). 2 is testing navigation. 3 is testing learnability. 4 is testing accessibility.	TA-4.2.4	3
49	D	D is correct. A survey would be the best way to get this information since it is deployed and there are a number of users out there who will respond. A is not correct because this should have been done when the interface was being designed. B is not correct because the lab is quite restricted in the number of participants and D gives a wider set of inputs from real users. C is not correct because there is no indication that the customers who are not interested might have accessibility issues. Also, the abandonment rate is not high, indicating that once people figure out the site, they stay there.	TA-4.2.4	3
50	A	A is correct. When you leave the requirements review meeting you should have enough information to support the test effort. B is not correct and should happen during the review or with another scheduled review. C and D are information you would expect to get from a design review, not a requirements review.	TA-5.1.1	1
51	B	B is correct. No alternate flows are shown in this set of steps. And you may need to wipe up the counter given the order of steps 3 and 4! A is not correct because this is the main flow. C is not correct because this would only be applicable to a user story. D is not correct because accessibility requirements are not normally shown at the use case level.	TA-5.2.1	3
52	D	D is correct. It's likely that the error messages weren't defined and either weren't implemented correctly or are misleading. A is not correct because the question stem says they were defined. B and C should not be significant for a mobile application.	TA-5.2.1	3
53	A	A is correct. A user story should only contain one item of functionality. Save and print are two items and should be recorded in two separate stories. B and C are applicable to use cases not user stories. D is not a problem because there appear to be no dependencies.	TA-5.2.2	3
54	C	C is correct. The story is too big for a two-week sprint. The acceptance criteria are not all defined (for example, is there a limit to the number of points? Can you split the points between purchases?) and are not all testable (usable? Efficient?). The functionality is not clearly defined and the story contains multiple items of	TA-5.2.2	3

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		functionality (registration as well as using the points). 5 is done correctly, there is a priority on the story. 4 is unknown, but since it is not defined, one would probably conclude there aren't any dependencies (of course, that could be dangerous…).		
55	C	C is correct. The cost of a defect is minimized when the defect is found in the same phase in which it was introduced. This is perfect phase containment.	TA-6.2.1	1
56	C	C is correct. The purpose of root cause analysis is to find common causes of problems and eliminate those problems, thus improving the overall process. A is not correct because although you may find the defects earlier because you know what to look for, this isn't the purpose of RCA. B is definitely not correct because we are not trying to target the developer but rather look for patterns. D is not correct because root cause analysis tells us what causes problems, not where they are.	TA-6.5.1	1
57	A	A is correct. These are all false positives, meaning that a problem is reported when there isn't one. This is a tester error as the tester should have done further investigation before reporting the problem. B is not correct because there is not a problem with the code logic. C and D might be problems, but the tester should be checking for those before documenting the defect.	TA-6.4.1	3
58	B	B is correct. Since the requirements were clearly stated, it's not a requirements issue. It's likely that design decisions were made regarding the type of implementation that are causing the software to behave incorrectly on the smaller screens. If this were a problem with just a particular browser, it might be a coding issue, but since the problem is more wide spread, it's likely a design issue.	TA-6.4.1	3
59	C	C is correct. This is a data handling problem. It might have been due to a missing requirement, but incorrect data handling is a more clear classification and immediately indicates that further testing is needed with a wider variety of data.	TA-6.4.1	3
60	B	B is correct. This is the job of the TA because they know the domain and so can supply accurate data and keywords for use with the automation. A is true for data-driven. C is the job of the TTA. D is not correct because the TA has an active role in defining the input parameters.	TA-7.2.2	1

#20, Table A:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Valid credit	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Valid debit	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	N	N	N	N
Valid PIN	Y	Y	N	N	Y	Y	N	N	Y	Y	N	N	Y	Y	N	N
Funds OK	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N	Y	N
Approve	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	N

#20, Table B:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Valid credit	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Valid debit	Y	Y	Y	Y	N	N	N	N	Y	Y	Y	Y	N	N	N	N
Valid PIN	Y	Y	N	N	Y	~	~	N	Y	Y	N	N	Y	Y	N	~
Funds OK	Y	N	Y	N	Y	N	Y	N	Y	N	~	N	Y	N	Y	~
Approve	Y	N	Y	N	Y	N	Y	N	Y	N	N	N	N	N	N	N

#26, Table C:

Manufacturer	Buy/Sell/Trade	Facility	Credit/Debit
N	B	1	C
N	S	2	D
N	T	3	C
TM	B	3	D
TM	S	2	C
TM	T	1	D
C	B	2	C
C	S	3	D
C	T	1	C
T	B	3	D
T	S	1	C
T	T	2	D

#43, Table D:

Var	Cond		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Food	F >=0	On	0														
		Off		-1													
		Out			-2												
	F <=20	On				20											
		Off					21										
		Out						22									
	Typical	In							10	10	10	10	10	10	10	10	10
Toy	T >= 0	On							0								
		Off								-1							
		Out									-5						
	T <=5	On										5					
		Off											6				
		Out												10			
	Typical	In	0	0	0	2	3	4							5	6	7
F / T	F-T>=5	On													5		
		Off														4	
		Out															3
	Typical	In				18	18	18	10	11	15	5	4	0			
Result			P	F	F	P	F	F	P	F	F	P	F	F	P	F	F

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