**Answers to questions in the chapter**

SA1. The correct answer is c.

SA2. The correct answer is b.

SA3. The correct answer is d.

**Answers to example examination questions**

E1. The correct answer is b.

a. is the definition of a test case.

c. is the description of a test basis.

d. is a broad description of test exit criteria.

E2. The correct answer is b.

a. the two parts are ‘switched’; what is described as ‘debugging’ is in fact ‘testing’, and vice versa.

c. is not true. The syllabus states that in some life cycles, testers may be involved in debugging.

d. indicates that debugging is involved in retesting software after fixes. This is a description of ‘retesting’, a testing activity. The description given to ‘testing’ is that of regression testing; testing involves more than this.

E3. The correct answer is c.

Choices ii and v are factors that will not help good communication, but will cause mistrust, antagonism and stress in the team. These are ruled out. Option c is the answer that has the other choices. A quick check sees that these are all matters that will encourage openness and trust – and are therefore correct choices.

E4. The correct answer is a.

b. this option has some truth to it, but it is not one of the testing principles. However, if there are no defects in the code, no amount of testing will find defects.

c. is not true. It is in direct contradiction to the ‘testing is context dependent’ principle.

d. is again not true. This is usually found not to be the case, being the opposite of the ‘defect clustering’ principle.

E5. The correct answer is d.

Two of the choices are very similar, choices iii and v. The differences here is test results (choice iii) and test suites (choice v). This points to choice iii being part of test execution and choice v being part of test implementation. Option d is the only one that has these assigned in this way.

E6. The correct answer is a.

This question is not implying that all developers think in one way and all testers in another, nor that individual developers cannot exhibit ‘think as testers’ characteristics. The choices provided are fairly straightforward, with the exception of iv (has good attention to detail). This last choice is given as an attribute of the way a tester thinks, but is not exclusive to testers! Choices i and iii are more aligned to testers, whereas choices ii and v relate to developers. This points to option a being the correct answer.

E7. The correct answer is c.

Reviewing requirements can never verify that software is fit for purpose (option a). Just because evidence may suggest that a proportion of project cost should be spent on testing is not a reason to perform testing. This rules out option b. Option d states that testing can find all defects, which means that we can show that there are no remaining defects – contrary to one of the testing principles about testing only finding defects; it cannot show that are no defects. This leaves option c, which is the correct answer.

E8. The correct answer is d.

A root cause is why something has happened, as opposed to what has happened. Options a, b and c describe unusual events (which may or may not be defects but are certainly irritating for customers). Option b could be a system overload problem – this could be as a result of a higher than expected amount of web traffic. This root cause is described in option d, the correct answer.

E9. The correct answer is b.

We will consider each of the work products in turn:

i. Documentation about which test item(s), test object(s), test tools and testware were involved in the testing – test execution.

ii. Test execution schedule – test implementation.

iii. Test cases – test execution.

iv. Documentation about the status (e.g. ‘pass’, ‘fail’, ‘not run’ etc.) of individual test cases or procedures – test implementation.

v. Test procedures and their sequencing – test execution.

Option b gives the correct choices.

**Answers to questions in the chapter**

SA1. The correct answer is d.

SA2. The correct answer is b.

SA3. The correct answer is a.

**Answers to example examination questions**

E1. The correct answer is a.

White-box testing is applicable at all test levels. Regression and performance testing are not test levels; they are test types.

E2. The correct answer is d.

Option a provides a standard for use in reviews. The standard used for non-functional testing is ISO 25010. Option b is incorrect – non-functional testing should be carried out all levels. Option c is incorrect, it can be measured in terms of percentage of non-functional requirements covered.

E3. The correct answer is c.

Options a and d are sequential models and do not use iterative development. Option b – the Rational Unified Process – tends to use longer iterations than Scrum.

E4. The correct answer is d.

Option ii is incorrect – each test level has a different objective. Option iii is also incorrect– test analysis and design should start once the documentation has been completed.

E5. The correct answer is b.

This is a definition of confirmation testing. The other three options are true of regression testing.

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E1. The correct answer is c.

White-box techniques are about the structure of software solutions, so they typically exercise interfaces and check that the software architecture has been correctly implemented. They do not reference requirements as such, and therefore cannot determine deviations from requirements or whether requirements have been correctly implemented. User stories are a form of requirements, so white-box testing is not appropriate to user stories or use cases.

E2. The correct answer is d.

Answer a is incorrect because coverage measures can be applied to both black-box and white-box tests. Answer b is partially correct, in that white-box test cases are based on structure, and black-box test cases are based on requirements but not the tester’s experience. Experience-based testing is based on the tester’s experience. Option c is incorrect for the same reason as option a is incorrect. Option d is the correct answer because black-box testing is based on requirements and white-box testing is based on design.

E3. The correct answer is c.

Option a includes two values from the lower partition; option b contains two values from the second partition; option d contains one value that is invalid (out of range).

E4. The correct answer is c.

Option a is incorrect because test cases are not solely based on interactions and may also incorporate preconditions and postconditions. Option b is incorrect because workflows are not the only option for describing interactions; activity diagrams or business process models are other alternatives. Option d is incorrect because a use case may represent interactions between a subject and one or more actors. Option c is correct; use cases may represent defined behaviours, alternative or exceptional behaviours, and error handling behaviours.

E5. The correct answer is a.

Option a is correct because the test cases represent all the valid transitions and one possible invalid transition. Option b is incorrect because the test cases recognise one invalid transition. Option c is incorrect because the test cases represent all of the valid transitions. Option d is incorrect because none of the test cases represents sequential

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