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### Question: 1

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Which of the following statements describing the consequences of specifying test conditions at a detailed level is NOT true?

K2 1 credit

- A. In an environment where the test basis is continuously changing, it is recommended to specify test conditions at a detailed level in order to achieve a better maintainability
- B. The specification of test conditions at a detailed level can be effective when no formal requirements or other development work products are available
- C. The specification of test conditions at a detailed level can require the implementation of an adequate level of formality across the team
- D. For system testing, the specification of test conditions at a detailed level, carried out early in the project as soon as the test basis is established, can contribute to defect prevention

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**Answer:A**

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### Question: 2

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Assume you are the Test Manager for a new software release of an e-commerce application.

The server farm consists of six servers providing different capabilities. Each capability is provided through a set of web services.

The requirements specification document contains several SLAs

(Service Level Agreements) like the following:

SLA-001: 99.5 percent of all transactions shall have a response time less than five seconds under a load of up-to 5000 concurrent users

The main objective is to assure that all the SLAs specified in the requirements specification document will be met before system release. You decide to apply a risk-based testing strategy and an early risk analysis confirms that performance is high risk. You can count on a well-written requirements specification and on a model of the system behavior under various load levels produced by the system architect.

Which of the following test activities would you expect to be the less important ones to achieve the test objectives in this scenario?

K4 3 credits

- A. Perform unit performance testing for each single web service
- B. Monitor the SLAs after the system has been released into the production environment
- C. Perform system performance testing, consisting of several performance testing sessions, to verify if all the SLAs have been met
- D. Perform static performance testing by reviewing the architectural model of the system under various load levels

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**Answer:B**

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### Question: 3

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Consider an information system of a Pay-Tv company based on a SOA architecture.

The integrated system currently consists of three core systems:

- a CRM (Customer Relationship Management) system

- a BRM (Billing and Revenue Management) system
- a CAS (Conditional Access System) system all of them communicating with SOA Middleware.

You have been asked to manage the testing activities for the integration of two additional off-the-shelf systems from two different vendors: a SMS (Short Message Service) server and an IVR (Interactive Voice Response) system.

Assume that there is a high likelihood that the two off-the-shelf systems will be low-quality and that you have a clear proof that the testing performed by the two vendors on their systems has been unsystematic and unprofessional. This obviously leads to higher quality risk for the overall integrated system.

You are the Test Manager of this project. Your main goal is to plan for testing activities to mitigate this risk.

Which of the following answers best describes the test activities (assuming it is possible to perform all of them) you should plan for?

K4 3 credits

- A. You should plan for an informal and minimal acceptance test of the two off-the-shelf systems and then a single end-to-end test of the overall integrated system
- B. You should directly plan for a single end-to-end test focused on end-to-end tests of the overall integrated system without an acceptance test of the two off-the-shelf systems
- C. You should plan for two levels: a system integration test and an end-to-end test of the overall integrated system
- D. You should plan for adequate re-testing of both the systems followed by a system integration test and an end-to-end test of the overall integrated system

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**Answer:D**

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**Question: 4**

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The following are the exit criteria described in the test plan of a software product:

EX1. The test suite for the product must ensure that at least each quality risk item is covered by at least one test case (a quality risk item can be covered by more test cases).

EX2. All test cases in the test suite must be run during the execution phase.

EX3. Defects are classified into two categories: "C" (critical defect) and "NC" (non-critical defect).

No known C defects shall exist in the product at the end of the test execution phase.

Which of the following information is useless when the specified exit criteria is evaluated? K2 1 credit

- A. A traceability matrix showing the relationships between the product risk items and the test cases
- B. A list of all the open defects with the associated classification information extracted from the defect tracking system
- C. A chart, showing the trend in the lag time from defect reporting to resolution, extracted from the defect tracking system
- D. The execution status of all the test cases extracted from the test management tool

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**Answer:C**

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**Question: 5**

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Which of the following is an example of the test closure activity indicated as "lessons learned"? K2 1 credit

- A. Archive all the test results of the acceptance testing phase
- B. Deliver a list of the open defects of a software product released into production to the service desk team
- C. Participate in a meeting at the end of a project aimed at better managing the events and problems of future projects
- D. Deliver an automated regression test suite, used during the system test phase of a software product released into production, to the team responsible for maintenance testing

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**Answer:C**

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**Question: 6**

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Assume that you are the Test Manager for a small banking application development project. You have decided to adopt a risk-based testing strategy and 5 product risks (R1, R2, R3, R4, and R5) have been identified during the quality risk analysis. The following table shows the risk level associated to these product risks (higher numbers mean higher risk):

Product risk	Risk level
R1	12
R2	25
R3	4
R4	20
R5	25

55 test cases have been designed and implemented to cover all these 5 product risks. The coverage is described in a traceability matrix.

This is the test execution status table, after the after the first week of test execution:

About 56% of the planned test cases have been successfully executed.

Assume that no additional product risks have been identified during the first week of test execution.

Product risk	Test cases				Defects	
	Planned	Run	Passed	Failed	Found	Fixed
R1	25	12	12	1	1	0
R2	12	7	6	1	1	0
R3	8	8	8	0	0	0
R4	5	2	2	0	0	0
R5	5	4	3	1	1	0

Which of the following answers would you expect to best describe the residual risks associated with the identified product risks, at the end of the first week of test execution? K3 2 credits

- A. Since R3 is the only risk for which all test cases have passed, the risk has been reduced by 20%
- B. The test execution status table indicates that the risk has been reduced by 56%
- C. The residual risk level can't be determined, because it requires that all the test cases have been executed
- D. The test execution table doesn't give an indication of the risk level of the open defects and the test cases that failed or are not run yet

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**Answer:D**

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