

**Practitioner Certificate
In
Software Testing**

Practice Exam 3

Time allowed: 3 hours

1 Compulsory Question

5 optional questions, from which 3 questions must be attempted

(for the purposes of a practice exam, there are only three optional questions, i.e. you need to attempt every question within this paper)

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Examination Question 1

(40 marks possible)

You have recently been employed by a software development company as a Test Manager. Your first active role within the company is to manage a small test team during the development of a new software product. You have been made aware of the negative feedback provided by customers of similar developed products, and so your aim is to improve this situation.

- 1) You have been brought on-board this project at an early stage, even before any requirements have been formally agreed. Explain the benefits of this from a test perspective. *(10 marks)*
- 2) The Project Manager has asked you about Test Strategies, so provide him with a written description of exactly what a Test Strategy is. Included in your description should be a brief summary of test phases that your team may provide during this project development. *(15 marks)*
- 3) As a Test Manager, a common requirement of you is to produce various other types of Test Management documentation. Give a brief overview of the following typical examples:
 - a. Test Policy
 - b. Project Test Plan
 - c. Phases Test Plan

(10 marks)
- 4) List the other types of processes that can influence, or be influenced by the 'Test Process'. *(5 marks)*

Examination Question 2

(20 marks possible)

A software company is developing an update to its existing product. The update contains some fixes to existing faults. The end customer who already has the existing product installed at its premises, expressed concern over the effect that an update might have on their system.

- 1) The customer has asked you (the Test Manager) to provide them with some confidence that the update will not adversely affect their current system.

Specifically, the customer would like to know in detail, which method you will use to ensure that any previously existing functionality will not be affected by the update.

Also, an explanation of the method you will use to ensure that the faulty functionality has now been fixed.

(10 marks)

- 2) The Project Manager would like to know details on how you will log the any problems you find with the software whilst testing. He specifically requires the following information:
 - An example of a typical incident report. This should include headings and explanations of the type of information to include.
 - An explanation of the IEEE Std. 1044-1993 standard including its steps.

(10 marks)

Examination Question 3

(20 marks possible)

As a founding member of a start-up company's software development department, you have the responsibility to employee individuals to make up a dedicated software testing team.

- 1) Provide examples of the types of skills that you would expect from test team members. *(8 marks)*

- 2) Briefly describe what is meant by 'Test Team' dynamics. Also list the common test team roles including a brief description of each. *(6 marks)*

- 3) Provide a description of the relationship between Developers and Testers. Include common misunderstandings and also your suggestions to avoid them. *(6 marks)*

Examination Question 4

(20 marks possible)

You have recently been employed by a software development company with a view to improve certain aspects of their testing process. The software they develop is situated on large network backbone routers (i.e. embedded). This causes issues with developers with regards to testing, as they rarely have the opportunity to physically test it for real, or even in a simulated environment. This results in the software being handed-over to the systems testers with a lack of confidence in the software that they have developed.

- 1) It has been suggested that 'reviews' could be useful in this type of situation. Provide a summary of what reviews actually are. *(3 marks)*
- 2) Provide a description of each type of known review, and any relevant benefits or hindrances to the situation detailed within the given scenario. *(10 marks)*
- 3) Describe a basic structure for a typical review, including who should attend and their roles within the review process *(5 marks)*
- 4) Provide some suggestions/guidelines to ensure that all future reviews are successful. *(2 marks)*