

Test for Embedded Tester Engineer

Part 1

Your colleagues have developed an algorithm that will solve the following types of cubes: Classic (3x3x3), Mirror Cube, Megaminx and Skewb. The product will also have a GUI that will be used to teach children with deficiencies to solve such challenges and improve their focus.

Your task is to define a test plan and write the acceptance tests scenarios for the product.

- Please prepare a presentation, where you explain the test plan and present the test scenarios



Part 2

You and your colleagues are involved in a project that needs further information from the customer. Given that the following requirements are the starting point of your discussion, please prepare an email asking for further clarifications.

DTC_1 The DTC's will not be qualified at start-up

DTC_2 The status of the DTC will be analyzed during the wake-up tests and if conditions are not met, they will be inactive.

DTC_3 If the conditions are met, the DTC will be active, after QualifyDtcTime

DTC_4 If the conditions are no longer present, the DTC will remain active for a period of DequalifyDtcTime.

DTC_5 After KL30, the system should be error free

DTC_6 While the speed does not exceed the value of SpeedStatusOK, the DTC's should not be stored in the error memory, even if they are active.

DTC_7 When the speed exceeds the value of SpeedStatusOK, the DTC's can be stored in error memory and can impact the system's behavior.

Part 3

1. A company recently purchased a commercial off-the-shelf application to automate their bill-paying process. They now plan to run an acceptance test against the package prior to putting it into production. Which of the following is their most likely reason for testing?

- a. To build confidence in the application.
- b. To detect bugs in the application.
- c. To gather evidence for a lawsuit.
- d. To train the users.

2. According to the ISTQB Glossary, the word 'bug' is synonymous with which of the following words?

- a. Incident
- b. Defect
- c. Mistake
- d. Error

3. According to the ISTQB Glossary, a risk relates to which of the following?

- a. Negative feedback to the tester.
- b. Negative consequences that will occur.
- c. Negative consequences that could occur.
- d. Negative consequences for the test object.

4. Ensuring that test design starts during the requirements definition phase is important to enable which of the following test objectives?

- a. Preventing defects in the system.
- b. Finding defects through dynamic testing.
- c. Gaining confidence in the system.
- d. Finishing the project on time.

5. A test team consistently finds between 90% and 95% of the defects present in the system under test. While the test manager understands that this is a good defect-detection percentage for her test team and industry, senior management and executives remain disappointed in the test group, saying that the test team misses too many bugs. Given that the users are generally happy with the system and that the failures which have occurred have generally been low impact, which of the following testing principles is most likely to help the test manager explain to these managers and executives why some defects are likely to be missed?

- a. Exhaustive testing is impossible
- b. Defect clustering
- c. Pesticide paradox
- d. Absence-of-errors fallacy

6. According to the ISTQB Glossary, regression testing is required for what purpose?

- a. To verify the success of corrective actions.
- b. To prevent a task from being incorrectly considered completed.
- c. To ensure that defects have not been introduced by a modification.
- d. To motivate better unit testing by the program members.

7. Which of the following is most important to promote and maintain good relationships between testers and developers?

- a. Understanding what managers value about testing.
- b. Explaining test results in a neutral fashion.
- c. Identifying potential customer work-arounds for bugs.
- d. Promoting better quality software whenever possible.

8. Which of the statements below is the best assessment of how the test principles apply across the test life cycle?

- a. Test principles only affect the preparation for testing.
- b. Test principles only affect test execution activities.
- c. Test principles affect the early test activities such as review.
- d. Test principles affect activities throughout the test life cycle.