

Note:

- Answers provided in this sheet are all marked in blue.
 - Should be used as reference material for the CSTE Mock Test - Part IV.
 - The evaluator needs to check the assumptions made by the participants, so as to give a proper marking to the respective answer.
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1. What is a test strategy? [5 Marks]

Answer:

A test strategy must address the risks and present a process that can reduce those risks.

The two components of Test strategy are:

- a) Test Factor: The risk of issue that needs to be addressed as a part of the test strategy. Factors that are to be addressed in testing a specific application system will form the test factor.
- b) Test phase: The phase of the systems development life cycle in which testing will occur.]

2. When to stop testing? [5 Marks]

Answer:

- a) When all the requirements are adequately executed successfully through test cases
- b) Bug reporting rate reaches a particular limit
- c) The test environment no more exists for conducting testing
- d) The scheduled time for testing is over
- e) The budget allocation for testing is over]

3. Your company is about to roll out an E-Commerce application. It is not possible to test the application on all types of browsers on all platforms and operating systems. What steps would you take in the testing environment to reduce the business risks and commercial risks? [5 Marks]

Answer:

Compatibility testing should be done on all browsers (IE, Netscape, Mozilla etc.) across all the operating systems (win 98/2K/NT/XP/ME/Unix etc.)]

4. What's the difference between priority and severity? [5 Marks]

Answer:

"Priority" is associated with scheduling, and "severity" is associated with standards. "Priority" means something is afforded or deserves prior attention; a precedence established by order of importance (or urgency). "Severity" is the state or quality of being severe; severe implies adherence to rigorous standards or high principles and often suggests harshness; severe is marked by or requires strict adherence to rigorous standards or high principles, e.g. a severe code of behavior. The words priority and severity do come up in bug tracking. A variety of commercial, problem-tracking/management software tools are available. These tools, with the detailed input of software test engineers, give the team complete information so developers can understand the bug, get an idea of its 'severity', reproduce it and fix it. The fixes are based on project 'priorities' and 'severity' of bugs. The 'severity' of a problem is defined in accordance to the customer's risk assessment and recorded in their selected tracking tool. A buggy software can 'severely' affect schedules, which, in turn can lead to a reassessment and renegotiation of 'priorities'.]

5. Customer has reported severe defects in Daily balance report. The customer is unhappy that the problem is not fixed even after a week. What action you as a PM will take to restore confidence of customer and ensure that this will not happen in future? [10 Marks]

Answer:

Conflict resolution – Get on your customer wavelength. Get the facts and ask questions, get detail info and take notes listen carefully. Establish and initiate an action program(admit error if it is there, negotiate satisfactory solution, state the solution and get agreement, take action and follow up with customer). Finally establish proper daily problem review process to prevent such problems in future.]

6. It's observed that the testers in your organization are performing tests on the deliverable even after significant defects have been found. This has resulted in unnecessary testing of little value because re-testing needs to be done after defects have been rectified. You are the test manager and going to update the test plan with recommendations on when to stop testing. List the recommendations you are going to make. [10 Marks]

Answer:

Following steps need to be taken .

- a) Acceptance criteria should tighten
 - b) Test cases should be re-evaluated (preferably peer review)
 - c) If possible more test cases should be added. With boundary value and equivalence class partition cases.
 - d) More test cases with invalid condition should be added
 - e) Stop criteria needs to be modified]
7. You are newly appointed as a test lead in an organization which uses manual testing. Your boss wants you to put forth three testing tools and their features to create awareness about the testing tools in the top management. Suggest any three testing tools for your test Environment and why do you suggest them? [10 Marks]

Answer:

The third question is very important one. You can write about test Director, Win runner/Load runner, McCabe or any other coverage tool. Test director is useful to track defect. WR or LR to do functionality/Load testing, Coverage tool to check the code coverage thereby helping in White box testing.]

8. You are working on a project, where the requirements change dynamically. The data in the project comes from various ends (from various Platforms) and are inter-dependent. You see this as a big risk in the project. How would you plan accordingly? [15 Marks]

Answer:

Give a Plan which takes care of the risk and is identified in the Risk Areas. Say that the testing scope would concentrate more on Data driven tests etc.]

9. Describe the Differences in between: [15 Marks]
- 1) Smoke & Sanity testing
 - 2) Validation & Verification
 - 3) Test Effectiveness & Test efficiency

Answers:

Smoke	Sanity
Smoke testing is a shallow and wide approach to the application. You test all areas of the application without getting too deep.	Sanity testing is usually narrow and deep. That is they look at only a few areas but all aspects of that part of the application.
A smoke test is scripted--either using a written set of tests or an automated test	A sanity test is usually unscripted.

Validation	Verification
Am I building the right product	Am I building the product right
Determining if the system complies with the requirements and performs functions for which it is intended and meets the organization's goals and user needs. It is traditional and is performed at the end of the project.	The review of interim work steps and interim deliverables during a project to ensure they are acceptable. To determine if the system is consistent, adheres to standards, uses reliable techniques and prudent practices, and performs the selected functions in the correct manner.
Am I accessing the right data (in terms of the data required to satisfy the requirement)	Am I accessing the data right (in the right place; in the right way).
High level activity	Low level activity
Performed after a work product is produced against established criteria ensuring that the product integrates correctly into the environment	Performed during development on key artifacts, like walkthroughs, reviews and inspections, mentor feedback, training, checklists and standards
Determination of correctness of the final software product by a development project with respect to the user needs and requirements	Demonstration of consistency, completeness, and correctness of the software at each stage and between each stage of the development life cycle.

Test Effectiveness	Test efficiency
Test Effectiveness = Loss due to problems / Total resources processed by the system	Test efficiency= (number of tests required / the number of system errors)

"Effective", means producing, or capable of producing, an intended result, or having a striking effect. For example, "For rapid long-distance transportation, the jet engine is more effective than a witch's broomstick".	"Efficient" means having a high ratio of output to input; working or producing with a minimum of waste. For example, "An efficient engine saves gas".
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10. "X" wants to develop online trading system in 2 months with no increase in team size. Online transactions has to be complete within 2 seconds and online search should not take more than 5 seconds. How "X" should approach this to get the software developed/tested with best quality and within time.

[20 Marks]

Answer:

- a) The critical success factors have been spelled out
 - b) In the very beginning of the project spell out the assumptions and constraints
 - c) If number of people and schedule is constrained, plan accordingly to deliver the product with above CTQ's (Critical To Quality)
 - d) It has been given the team size remains constant. The resource loading pattern in any project is the bell curve. Initially it is minimum, planning phase it increases, execution phase it is maximum, closure phase it again reaches minimum. Since I have more people available I can plan for parallel activities to overcome the shortage in execution phase.
 - e) Plan for quality assurance activities more than the QC activities.
 - f) Spend more resources and time during planning. This will help bringing effectiveness and efficiency in the entire process thereby ensuring optimistic utilization of time with respect to testing and development.
 - g) The success of the project depends on how well you have plan and control the project
- 10) a. List any 5 Risk associated with software Testing – KD4
- 10) b. List 5 guidelines to writing the Test Plan – KD 4