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| **1.** | Which of the following is a project risk mitigation step that you might take as a test manager? |
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| **A.** | Testing for performance problems |

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| **B.** | Hiring a contractor after a key test analyst quits |

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| **C.** | Procuring extra test environments in case one fails during testing |

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| **D.** | Performing a project retrospective using test results |

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| **2.** | You are planning the testing for an integrated system that will use three off-the-shelf components to manage a bank's accounts-receivable system. You are conducting an informal quality risk analysis session with project and system stakeholders to determine what test conditions should be tested and how much each test condition should be tested. Which of the following is a quality risk item that you might identify in this quality risk analysis session? |
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| **A.** | Failure of a component vendor to conduct adequate component testing |

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| **B.** | Calculation of excessive late-payment penalties for invoices |

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| **C.** | On-time payment of all invoices for international vendors |

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| **D.** | Calculation of risk priority using likelihood and impact |

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| **3.** | During a formalized quality risk analysis session following the Failure Mode and Effect Analysis technique, you are calculating risk priorities. Which of the following are major factors in this calculation? |
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| **A.** | Severity and priority |

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| **B.** | Functionality, reliability, usability, efficiency, maintainability and portability |

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| **C.** | Loss of a key contributor on the test team |

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| **D.** | Loss of a key contributor on the development team |

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| **4.** | Assume you are a test manager in charge of integration testing, system testing, and acceptance testing for a bank. You are working on a project to upgrade an existing automated teller machine system to allow customers to obtain cash advances from supported credit cards. The system should allow cash advances from $20 to $500, inclusively, for all supported credit cards. The supported credit cards are American Express, Visa, Japan Credit Bank, Eurocard, and MasterCard. Which of the following statements best associates a key stakeholder with the kind input that stakeholder can provide during a quality risk analysis? |
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| **A.** | A tester can provide input on the likelihood of a risk item. |

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| **B.** | A developer can provide input on the impact of a risk item. |

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| **C.** | A business analysis can provide input on the likelihood of a risk item. |

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| **D.** | A help desk staffer can provide input on the impact of a risk item. |

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| **5.** | Which of the following is a situation in which you would expect an iterative quality risk analysis to result in the largest number of new or changed risk items and risk levels? |
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| **A.** | You perform a risk analysis on the final requirements specification and subsequently receive a draft design specification. |

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| **B.** | A tester leaves after test design is complete, and you hire a new tester to replace her. |

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| **C.** | The development manager hires two additional programmers after the quality risk analysis is complete. |

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| **D.** | You perform a risk analysis on the final requirements specification and then that document is placed under formal configuration management. |

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| **6.** | Assume you are a test manager working on a project to create a programmable thermostat for home use to control central heating, ventilation, and air conditioning (HVAC) systems. In addition to the normal HVAC control functions, the thermostat also has the ability to download data to a browser-based application that runs on PC's for further analysis. During quality risk analysis, you identify compatibility problems between the browser-based application and the different PC configurations that can host that application as a quality risk item with a high level of likelihood, You plan to perform compatibility testing to address this risk. Which of the following is a way in which you might monitor the effect of testing on the reduction of this risk during test execution? |
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| **A.** | Reduce the number of supported PC configurations |

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| **B.** | Assign more testers to cover compatibility that testers to cover functionality |

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| **C.** | Analyze the number of defects found that relate to this risk item |

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| **D.** | Plan to test the most common PC configuration |

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| **7.** | Which of the following is an example of a project where failure mode and effect analysis would be a better choice for risk analysis? |
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| **A.** | It is the project team's first application of risk-based testing. |

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| **B.** | The system under test is both complex and safety critical. |

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| **C.** | The system under test is a financial system. |

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| **D.** | Minimizing the amount of documentation is a key concern. |

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| **8.** | Assume you are a test manager in charge of integration testing, system testing, and acceptance testing for a bank. You are working on a project to upgrade an existing automated teller machine system to allow customer to obtain cash advances from supported credit cards. The system should allow cash advances from $20 to $500, inclusively, for all supported credit cards. The supported credit cards are American Express, Visa, Japan Credit Bank, Eurocard, and MasterCard. In the master test plan, the Features to be Tested section lists the following: 1. All supported credit cards 2. Language localization 3. Valid and invalid advances 4. Usability 5. Response time Relying only on the information given above, select the features to be tested for which sufficient information is available to proceed with test design. |
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| **A.** | I |

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| **B.** | II |

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| --- | --- |
| **C.** | III |

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| --- | --- |
| **D.** | IV |

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| **E.** | V |

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| **9.** | Continue with the scenario described in the previous. Which of the following topics would you need to address in detail in the master test plan? |
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| **A.** | A strategy for regression testing |

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| **B.** | A list of advance amount boundary values |

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| **C.** | A description of intercase dependencies |

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| --- | --- |
| **D.** | A logical collection of test cases |

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| **10.** | Assume you are a test manager working on a project to create a programmable thermostat for home use to control central heating, ventilation, and air conditioning (HVAC) systems. In addition to the normal HVAC control functions, the thermostat also has the ability to download data to a browser-based application that runs on PCs for further analysis. The company test strategy calls for each test case to be run on all combinations of configuration options. For this system, you identify the following factors and, the following options: Supported PC/thermostat connections: USB and Bluetooth Supported operating systems: Windwos 2000, Windows XP, Windows Vista, Mac X, Linux. Supported browsers: Internet Explorer, Firefox, Opera Because there are 10 test cases that involve downloading data, this would require running 300 test cases, each of thich requires an hour to run. With management approval, you decide to test five configurations, covering each option but not all the possible pairs and triples of options. Which of the following statements describes the best option for documenting this deviations from the test strategy? |
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| **A.** | In the test design specifications, explain the alternate approach planned for this project and how to set up the test configurations. |

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| **B.** | In the test procedure specifications, explain which test cases shhould be run against which configurations. |

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| **C.** | In the master test plan, explain the alternate approach planned for this project and why this approach is sufficient. |

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| **D.** | In the test item transmittal report, explain the alternate approach planned for this project and which test items ere tested against which configuration. |

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| **11.** | Continue with the scenario described in the previous question. You are writing a master test plan to cover integration testing and system testing of the programmable thermostat. Select all of the following statements that are true. |
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| **A.** | 1. The approach section should describe how to test the integration of the thermostat with other parts of HVAC system. |

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| **B.** | 1. The schedule section should describe when integration testing should start and when system testing should start. |

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| **C.** | 1. The environmental needs section should address who is responsible for each level of testing. |

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| **D.** | 1. The test items section should describe the equipment required for each level of testing. |

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| **E.** | 1. The test deliverables section should describe results reporting for each level of testing. |

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| **12.** | Continue with the scenario described in the previous questions, where you are a test manager, working on a project to create a programmable thermostat for home use to control central heating, ventilation, and air conditioning (HVAC) systems, one critical quality risk identified for this system is the possibility of damage to the HVAC system caused by excessive cycling of the compressor (i.e., turning the unit on and off repeatedly in short intervals). Which if the following is a reasonable way to use an IEEE 829 test plan to direct appropriate testing for this risk? |
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| **A.** | Write a separate test plan for this level of testing. |

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| **B.** | List the feature that prevents excessive cycling as a feature to be tested. |

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| **C.** | Detail all of the requirements of the programmable thermostat in the introduction of the test plan. |

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| **D.** | Include a fully functioning compressor as one of the test items. |

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| **13.** | Continue with the scenario from the precious question.             Historically, on seven past projects the test team has found approximately 12 bugs during system test for each person-month of development team effort. Five developers are assigned to work on a new project that is scheduled for the last six months. Assume that the cumulative number of bugs found, as shown in your convergence chart has flattened at 351 defects.               Based on this information only, which of the following statements is most likely to be true. |
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| **A.** | You would expect to find exactly 20 more defects before the end of system test. |

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| **B.** | You have omitted tests for at least one critical quality risk category. |

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| **C.** | You needed a test team of at least three testers for optimum testing. |

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| **D.** | You have found roughly the number of defects you would expect to find during system test. |

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| **14.** | Continue with the scenario from the previous question.               Assume that this project is following an iterative lifecycle, while the previous project for which you have bug metrics followed a sequential lifecycle. Assuming no other dissimilarities between this project and the previous projects exist . which of the following might be a reason to question the accuracy of the predicted number of defects? |
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| --- | --- |
| **A.** | people factors. |

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| --- | --- |
| **B.** | material factors. |

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| --- | --- |
| **C.** | process factors. |

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| **D.** | quality factors. |

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| **15.** | You are a test manager in charge of system testing on a project to update a cruise-control module for a ne model of a car. The goal of the cruise-control software update is to make the care more fuel efficient.             You have written a first release of the system test plan based on the final requirements specification. You receive an early draft of the design specification. Identify all of the following statements that are true. |
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| **A.** | Do not update the system test plan until the final version of the design specification is available. |

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| **B.** | Produce a draft update of the system test plan based on this version of the design specification |

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| **C.** | Check this version of the design specification for inconsistencies with the requirements specification |

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| **D.** | Participate in the final review of the design specification but not any preliminary reviews of the design specification |

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| **E.** | Review the quality risk analysis to see if the design specification has identified additional risk items |

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| **16.** | Which of the following is the best example of a technique for controlling test progress in terms of the residual level of quality risk? |
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| **A.** | Counting the number of defects found and the number of defects resolved. |

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| **B.** | Counting the number of test cases passed and the number of test cases failed. |

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| --- | --- |
| **C.** | Counting the number of requirements that work properly and the number of requirements with known defects |

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| **D.** | Counting the number of tested risk items without known defects and the number of tested risk items with known defects |

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| **17.** | You are a test manager in charge of system testing on a project to update a cruise-control module for a new model of a car. The goal of the cruise-control software update is to make the car more fuel efficient.             Halfway through test execution, you find that the test results do not conclusively determine whether fuel efficiency has improved. Identify all of the following actions that you might direct the test analysts to take to help to resolve this problem. |
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| **A.** | Redesign the fuel efficiency tests |

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| **B.** | Revise the quality risk analysis |

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| **C.** | Modify the test environment to gather more detailed actual results |

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| **D.** | Check for consistency in tested fuel mixtures |

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| **E.** | Report fuel efficiency as apparently unchanged |

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| **18.** | Assume you are a test manager in charge of integration testing, system testing, and acceptance testing for a bank. You are working on a project to upgrade an existing automated teller machine system to allow customers to obtain cash advances from supported credit cards. The system should allow cash advances from $20 to $500, inclusively, for all supported credit cards. The supported credit cards are American Express, Visa, Japan Credit Bank, Eurocard, and Mastercard.   During test execution, you find five defects, each reported by different tester, that involve the same problems with cash advances, with the only different between these reports being the credit card tested. Which of the following is an improvement to the test process that you might suggest? |
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| --- | --- |
| **A.** | Revise all cash advance test cases to test with only one credit card. |

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| --- | --- |
| **B.** | Review all reports filed subsequently and close any such duplicate defect reports before assignment to development. |

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| --- | --- |
| **C.** | Change the requirements to delete support for American Express card. |

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| --- | --- |
| **D.** | Have testers check for similar problems with other cards and report their findings in defect reports. |

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| **19.** | Which of the following is an example of a cost of internal failure? |
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| **A.** | Finding a bug during testing |

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| --- | --- |
| **B.** | Training developers in secure coding practices |

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| --- | --- |
| **C.** | Designing test cases |

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| **D.** | Fixing a customer-detected bug |

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| **20.** | Which of the following is a risk of outsourced testing that might not apply to distributed testing? |
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| **A.** | Selection of an improper test partner |

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| **B.** | Communication problems created by time zone differences |

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| **C.** | Insufficient skills in some of the test team members |

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| **D.** | Inconsistent test processes across the testing locations |