TVVS - Test, Verification and Validation of Software

Exercises

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- An employee's bonus is to be calculated. It cannot be negative, but it can be calculated down to zero. The bonus is based on the length of employment:
 - less than or equal to 2 years,
 - more than 2 years but less than 5 years,
 - 5 to 10 years inclusively or longer than 10 years.
- What is the minimum number of test cases required to cover all valid equivalence partitions for calculating the bonus?
 - a) 3.
 - b) 5.
 - c) 2.
 - d) 4.
- Select ONE option.

- A speed control and reporting system has the following characteristics:
 - If you drive 50 km/h or less, nothing will happen.
 - If you drive faster than 50 km/h, but no more than 55 km/h, you will be warned.
 - If you drive faster than 55 km/h but not more than 60 km/h, you will be fined.
 - If you drive faster than 60 km/h, your driving license will be suspended.
 - The speed in km/h is available to the system as an integer value.
- Which would be the most likely set of values (km/h) identified by applying the boundary value analysis, where only the boundary values on the boundaries of the equivalence classes are relevant?
 - a) 0, 49, 50, 54, 59, 60.
 - b) 50, 55, 60.
 - c) 49, 50, 54, 55, 60, 62.
 - d) 50, 51, 55, 56, 60, 61.
- Select ONE option.



- A company's employees are paid bonuses if they work more than a year in the company and achieve a target which is individually agreed before.
- These facts can be shown in a decision table:

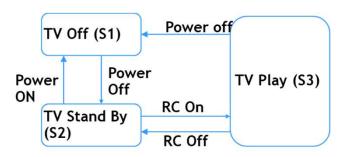
| Test-ID | | T1 | T2 | Т3 | T4 |
|-------------|----------------------------------|-----|----|-----|-----|
| Condition 1 | Employment for more than 1 year? | Yes | No | No | Yes |
| Condition 2 | Agreed target? | No | No | Yes | Yes |
| Condition 3 | Achieved target? | No | No | Yes | Yes |
| Action | Bonus payment | No | No | No | No |

- Which of the following test cases represents a situation that can happen in real life, and is missing in the above decision table?
 - a) Condition1 = YES, Condition2 = NO, Condition3 = YES, Action= NO
 - b) Condition1 = YES, Condition2 = YES, Condition3 = NO, Action= YES
 - c) Condition1 = NO, Condition2 = NO, Condition3 = YES, Action= NO
 - d) Condition1 = NO, Condition2 = YES, Condition3 = NO, Action= NO
- Select ONE option.



Which of the following statements about the given state transition diagram and table of

test cases is TRUE?



States
S1: TV Off
S2: TV stand by
S3: TV Play
Transitions
S1->S2: Power off
S2->S1: Power On
S3->S1: Power Off
S2->S3: RC On
S3->S2: RC Off

| Test Case | 1 | 2 | 3 | 4 | 5 |
|----------------------|-----------|-----------|------------|-----------|------------|
| Start State | S1 | S2 | S2 | S3 | S 3 |
| Input | Power Off | Power On | RC On | RC Off | Power Off |
| Expected Final State | S2 | S1 | S 3 | S2 | S1 |

- a) The given test cases cover both valid and invalid transitions in the state transition diagram.
- b) The given test cases represent all possible valid transitions in the state transition diagram.
- c) The given test cases represent some of the valid transitions in the state transition diagram.
- d) The given test cases represent pairs of transitions in the state transition diagram.
- Select ONE option.

- A video application has the following requirement: The application shall allow playing a video on the following display resolution:
 - 1. 640x480.
 - 2. 1280x720.
 - 3. 1600x1200.
 - 4, 1920x1080.
- Which of the following list of test cases is a result of applying the equivalence partitioning test technique to test this requirement?
 - a) Verify that the application can play a video on a display of size 1920x1080 (1 test case).
 - b) Verify that the application can play a video on a display of size 640x480 and 1920x1080 (2 test cases).
 - c) Verify that the application can play a video on each of the display sizes in the requirement (4 test cases).
 - d) Verify that the application can play a video on any one of the display sizes in the requirement (1 test case).
- Select ONE option.

- A fitness app measures the number of steps that are walked each day and provides feedback to encourage the user to keep fit.
- The feedback for different numbers of steps should be:
 - Up to 1000 Couch Potato!
 - Above 1000, up to 2000 Lazy Bones!
 - Above 2000, up to 4000 Getting There!
 - Above 4000, up to 6000 Not Bad!
 - Above 6000 Way to Go!
- Which of the following sets of test inputs would achieve the highest equivalence partition coverage?

```
1000,
                       2000,
                                 3000,
• a) 0,
                                          4000
             2001,
                       4000,
                                          6000
• b) 1000,
                                4001,
• c) 123,
         2345.
                       3456.
                                4567,
                                          5678
• d) 666,
             999,
                       2222,
                                 5555,
                                          6666
```

SAMPLE EXAM (ISTQB)

- Which of the following provides the BEST description of a test case?
 - a) A document specifying a sequence of actions for the execution of a test. Also known as test script or manual test script.
 - b) A set of input values and expected results, with execution preconditions and execution postconditions, developed for a particular test condition.
 - c) An attribute of a system specified by requirements documentation (for example reliability, usability or design constraints) that is executed in a test.
 - d) An item or event of a system that could be verified by one or more test conditions, e.g., a function, transaction, feature, quality attribute, or structural element.
- Select ONE option.



- Which of the following is a major objective of testing?
 - a) To prevent defects.
 - b) To validate the project plan works as required.
 - c) To gain confidence in the development team.
 - d) To make release decisions for the system under test.

- Which of the following is an example of a failure in a car cruise control system?
 - a) The developer of the system forgot to rename variables after a cutand-paste operation.
 - b) Unnecessary code that sounds an alarm when reversing was included in the system.
 - c) The system stops maintaining a set speed when the radio volume is increased or decreased.
 - d) The design specification for the system wrongly states speeds in km/h.

- Which of the following is a defect rather than a root cause in a fitness tracker?
 - a) Because he was unfamiliar with the domain of fitness training, the author of the requirements wrongly assumed that users wanted heartbeat in beats per hour.
 - b) The tester of the smartphone interface had not been trained in state transition testing, so missed a major defect.
 - c) An incorrect configuration variable implemented for the GPS function could cause location problems during daylight saving times.
 - d) Because she had never worked on wearable devices before, the designer of the user interface misunderstood the effects of reflected sunlight.



- As a result of risk analysis, more testing is being directed to those areas of the system under test where initial testing found more defects than average.
- Which of the following testing principles is being applied?
 - a) Beware of the pesticide paradox.
 - b) Testing is context dependent.
 - c) Absence-of-errors is a fallacy.
 - d) Defects cluster together.

- Given the following test activities and tasks:
 - A. Test design
 - B. Test implementation
 - C. Test execution
 - D. Test completion
 - 1. Entering change requests for open defect reports
 - 2. Identifying test data to support the test cases
 - 3. Prioritizing test procedures and creating test data
 - 4. Analyzing discrepancies to determine their cause
- Which of the following BEST matches the activities with the tasks?
 - a) A-2, B-3, C-4, D-1
 - b) A-2, B-1, C-3, D-4
 - c) A-3, B-2, C-4, D-1
 - d) A-3, B-2, C-1, D-4
- Select ONE option.



- Which of the following BEST describes how value is added by maintaining traceability between the test basis and test artifacts?
 - a) Maintenance testing can be fully automated based on changes to the initial requirements.
 - b) It is possible to determine if a new test case has increased coverage of the requirements.
 - c) Test managers can identify which testers found the highest severity defects.
 - d) Areas that may be impacted by side-effects of a change can be targeted by confirmation testing.
- Select ONE option.



- Which of the following qualities is MORE likely to be found in a tester's mindset rather than in a developer's?
 - a) Experience on which to base their efforts.
 - b) Ability to see what might go wrong.
 - c) Good communication with team members.
 - d) Attention to detail.

- Given the following statements about the relationships between software development activities and test activities in the software development lifecycle:
 - 1. Each development activity should have a corresponding testing activity.
 - 2. Reviewing should start as soon as final versions of documents become available.
 - 3. The design and implementation of tests should start during the corresponding development. activity
 - 4. Testing activities should start in the early stages of the software development lifecycle.
- Which of the following CORRECTLY shows which are true and false?
 - a) True 1, 2; False 3, 4
 - b) True 2, 3; False 1, 2
 - c) True 1, 2, 4; False 3
 - d) True 1, 4; False 2, 3
- Select ONE option.

- Given that the testing being performed has the following attributes:
 - based on interface specifications;
 - focused on finding failures in communication;
 - the test approach uses both functional and structural test types.
- Which of the following test levels is MOST likely being performed?
 - a) Component integration testing.
 - b) Acceptance testing.
 - c) System testing.
 - d) Component testing.
- Select ONE option.



- Which of the following statements about test types and test levels is CORRECT?
 - a) Functional and non-functional testing can be performed at system and acceptance test levels, while white-box testing is restricted to component and integration testing.
 - b) Functional testing can be performed at any test level, while whitebox testing is restricted to component testing.
 - c) It is possible to perform functional, non-functional and white-box testing at any test level.
 - d) Functional and non-functional testing can be performed at any test level, while Whitebox testing is restricted to component and integration testing.
- Select ONE option.



- Which of the following statements BEST compares the purposes of confirmation testing and regression testing?
 - a) The purpose of regression testing is to ensure that all previously run tests still work correctly, while the purpose of confirmation testing is to ensure that any fixes made to one part of the system have not adversely affected other parts.
 - b) The purpose of confirmation testing is to check that a previously found defect has been fixed, while the purpose of regression testing is to ensure that no other parts of the system have been adversely affected by the fix.
 - c) The purpose of regression testing is to ensure that any changes to one part of the system have not caused another part to fail, while the purpose of confirmation testing is to check that all previously run tests still provide the same results as before.
 - d) The purpose of confirmation testing is to confirm that changes to the system were made successfully, while the purpose of regression testing is to run tests that previously failed to ensure that they now work correctly.
- Select ONE option.



- Which of the following statements CORRECTLY describes a role of impact analysis in Maintenance Testing?
 - a) Impact analysis is used when deciding if a fix to a maintained system is worthwhile.
 - b) Impact analysis is used to identify how data should be migrated into the maintained system.
 - c) Impact analysis is used to decide which hot fixes are of most value to the user.
 - d) Impact analysis is used to determine the effectiveness of new maintenance test cases.

- Which of the following statements CORRECTLY reflects the value of static testing?
 - a) By introducing reviews, we have found that both the quality of specifications and the time required for development and testing have increased.
 - b) Using static testing means we have better control and cheaper defect management due to the ease of removing defects later in the lifecycle.
 - c) Now that we require the use of static analysis, missed requirements have decreased and communication between testers and developers has improved.
 - d) Since we started using static analysis, we -find coding defects that might have not been found by performing only dynamic testing.



- Which of the following sequences BEST shows the main activities of the work product review process?
 - a) Initiate review Reviewer selection Individual review Issue communication and analysis Rework
 - b) Planning & preparation Overview meeting Individual review Fix-Report
 - c) Preparation Issue Detection Issue communication and analysis -Rework - Report
 - d) Plan Initiate review Individual review Issue communication and analysis Fix defects & report

- Which of the following CORRECTLY matches the roles and responsibilities in a formal review?
 - a) Manager Decides on the execution of reviews
 - b) Review Leader Ensures effective running of review meetings
 - c) Scribe Fixes defects in the work product under review
 - d) Moderator Monitors ongoing cost-effectiveness

- The reviews being used in your organization have the following attributes:
 - There is a role of a scribe
 - The purpose is to detect potential defects
 - The review meeting is led by the author
 - Reviewers find potential defects by individual review
 - A review report is produced
- Which of the following review types is MOST likely being used?
 - a) Informal Review
 - b) Walkthrough
 - c) Technical Review
 - d) Inspection
- Select ONE option.



 You have been asked to take part in a checklist-based review of the following excerpt from the requirements specification for a library system:

| Librarians can: | Borrowers can: | All users (librarians |
|---|---|---|
| 1. Register new borrowers. | 7. Borrow a maximum of 3 books at one time. | 13. Can search for books by ISBN, author, or title. |
| 2. Return books from borrowers. | 8. View the history of books they have borrowed/reserved. | 14. Can browse the system catalogue. |
| 3. Accept fines from borrowers. | 9. Be fined for failing to return a book within 3 weeks. | 15. The system shall respond to user requests within 3 seconds. |
| 4. Add new books to the system with their ISBN, author and title. | 10. Get system responses within 3 seconds. | 16. The user interface shall |
| 5. Remove books from the system. | 11. Borrow a book at no cost for a maximum of 4 weeks. | |
| 6. Get system responses within 5 seconds. | 12. Reserve books (if they are on-loan). | |

- You have been assigned the checklist entry that requires you to review the specification for inconsistencies between individual requirements (i.e. conflicts between requirements).
- Which of the following CORRECTLY identifies inconsistencies between pairs of requirements?
 - a) 6-10, 6-15, 7-12
 - b) 6-15, 9-11
 - c) 6-10, 6-15, 9-11
 - d) 6-15, 7-12
- Select ONE option.



- Which of the following provides the BEST description of exploratory testing?
 - a) A testing practice in which an in-depth investigation of the background of the test object is used to identify potential weaknesses that are examined by test cases.
 - b) An approach to testing whereby the testers dynamically design and execute tests based on their knowledge, exploration of the test item and the results of previous tests.
 - c) An approach to test design in which test activities are planned as uninterrupted sessions of test analysis and design, often used in conjunction with checklist-based testing.
 - d) Testing based on the tester's experience, knowledge and intuition.
- Select ONE option.

- Which of the following BEST matches the descriptions with the different categories of test techniques?
 - 1. Coverage is measured based on a selected structure of the test object.
 - 2. The processing within the test object is checked.
 - 3. Tests are based on defects' likelihood and their distribution.
 - 4. Deviations from the requirements are checked.
 - 5. User stories are used as the test basis.
 - Black Black-box test techniques
 - White White-box test techniques
 - Experience Experience-based test techniques
 - a) Black 4, 5 White 1, 2 Experience 3
 - b) Black 3 White 1, 2 Experience 4, 5
 - c) Black 4 White 1, 2 Experience 3, 5
 - d) Black 1, 3, 5 White 2 Experience 4



- A fitness app measures the number of steps that are walked each day and provides feedback to encourage the user to keep fit.
- The feedback for different numbers of steps should be:
 - Up to 1000 Couch Potato!
 - Above 1000, up to 2000 Lazy Bones!
 - Above 2000, up to 4000 Getting There!
 - Above 4000, up to 6000 Not Bad!
 - Above 6000 Way to Go!
- Which of the following sets of test inputs would achieve the highest equivalence partition coverage?

| • | a) 0, | 1000, | 2000, | 3000, | 4000 |
|---|----------|-------|-------|-------|------|
| • | b) 1000, | 2001, | 4000, | 4001, | 6000 |
| • | c) 123, | 2345, | 3456, | 4567, | 5678 |
| • | d) 666, | 999, | 2222, | 5555, | 6666 |

- A daily radiation recorder for plants produces a sunshine score based on a combination of the number of hours a plant is exposed to the sun (below 3 hours, 3 to 6 hours or above 6 hours) and the average intensity of the sunshine (very low, low, medium, high).
- Given the following test cases:

| | Hours | Intensity | Score |
|------|-------|-----------|-------|
| • T1 | 1.5 | v. low | 10 |
| • T2 | 7.0 | medium | 60 |
| • T3 | 0.5 | v. low | 10 |

- What is the minimum number of additional test cases that are needed to ensure full coverage of all valid INPUT equivalence partitions?
 - a) 1
 - b) 2
 - c) 3
 - d) 4
- Select ONE option.

- A smart home app measures the average temperature in the house over the previous week and provides feedback to the occupants on their environmental-friendliness based on this temperature.
- The feedback for different average temperature ranges (to the nearest °C) should be:
 - Up to 10°C Icy Cool!
 - 11°C to 15°C Chilled Out!
 - 16°C to 19°C Cool Man!
 - 20°C to 22°C Too Warm!
 - Above 22°C Hot & Sweaty!
- Using two-point BVA, which of the following sets of test inputs provides the highest level of boundary coverage?
 - a) 0°C, 11°C, 20°C, 22°C, 23°C
 b) 9°C, 15°C, 19°C, 23°C, 100°C
 c) 10°C, 16°C, 19°C, 22°C, 23°C
 d) 14°C, 15°C, 18°C, 19°C, 21°C, 22°C
- Select ONE option



 Decision table testing is being performed on a speeding fine system. Two test cases have already been generated for rules 1 and 4, which are shown below:

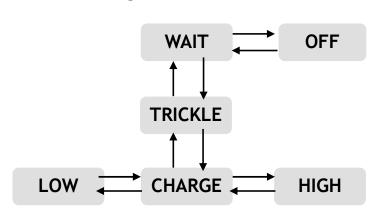
| | Rules | R1 | R4 |
|------------|-------------|----|----|
| Conditions | Speed>50 | Т | F |
| | School zone | Т | F |
| Actions | \$250 Fine | F | F |
| | Jail | Т | F |

Given the following additional test cases:

| | Rules | DT1 | DT2 | DT3 | DT4 |
|-----------------|-------------|-----|-----|-----|-----|
| Input | Speed | 55 | 44 | 66 | 77 |
| | School Zone | Т | Т | Т | F |
| Expected Result | \$250 Fine | F | F | F | Т |
| | Jail | Т | F | Т | F |

- Which two of the additional test cases would achieve full coverage of the complete decision table (when combined with the test cases that have already been generated for rules 1 and 4)?
 - a) DT1, DT2
 - b) DT2, DT3
 - c) DT2, DT4
 - d) DT3, DT4

- Given the following state model of a battery charger software:
- Which of the following sequences of transitions provides the highest level of transition coverage for the model?



Wait -> Off
Off -> Wait
Wait -> Trickle
Trickle -> Wait
Trickle -> Charge
Charge -> Trickle
Low-> Charge
Charge-> Low
Charge-> High
High-> Charge

- a) OFF \rightarrow WAIT \rightarrow OFF \rightarrow WAIT \rightarrow TRICKLE \rightarrow CHARGE \rightarrow HIGH \rightarrow CHARGE \rightarrow LOW
- b) WAIT \rightarrow TRICKLE \rightarrow WAIT \rightarrow OFF \rightarrow WAIT \rightarrow TRICKLE \rightarrow CHARGE \rightarrow LOW \rightarrow CHARGE
- c) HIGH \rightarrow CHARGE \rightarrow LOW \rightarrow CHARGE \rightarrow TRICKLE \rightarrow WAIT \rightarrow TRICKLE
- d) WAIT \rightarrow TRICKLE \rightarrow CHARGE \rightarrow HIGH \rightarrow CHARGE \rightarrow TRICKLE \rightarrow WAIT \rightarrow OFF \rightarrow WAIT

- Which of the following statements BEST describes how test cases are derived from a use case?
 - a) Test cases are created to exercise defined basic, exceptional and error behaviors performed by the system under test in collaboration with actors.
 - b) Test cases are derived by identifying the components included in the use case and creating integration tests that exercise the interactions of these components.
 - c) Test cases are generated by analyzing the interactions of the actors with the system to ensure the user interfaces are easy to use.
 - d) Test cases are derived to exercise each of the decision points in the business process flows of the use case, to achieve 100% decision coverage of these flows.
- Select ONE option.



- Which of the following descriptions of statement coverage is CORRECT?
 - a) Statement coverage is a measure of the number of lines of source code (minus comments) exercised by tests.
 - b) Statement coverage is a measure of the proportion of executable statements in the source code exercised by tests.
 - c) Statement coverage is a measure of the percentage of lines of source code exercised by tests.
 - d) Statement coverage is a measure of the number of executable statements in the source code exercised by tests.

- Which of the following descriptions of decision coverage is CORRECT?
 - a) Decision coverage is a measure of the percentage of possible paths through the source code exercised by tests.
 - b) Decision coverage is a measure of the percentage of business flows through the component exercised by tests.
 - c) Decision coverage is a measure of the 'if' statements in the code that are exercised with both the true and false outcomes.
 - d) Decision coverage is a measure of the proportion of decision outcomes in the source code exercised by tests.

- Which of the following BEST describes the concept behind error guessing?
 - a) Error guessing requires you to imagine you are the user of the test object and guess mistakes the user could make interacting with it.
 - b) Error guessing involves using your personal experience of development and the mistakes you made as a developer.
 - c) Error guessing involves using your knowledge and experience of defects found in the past and typical mistakes made by developers.
 - d) Error guessing requires you to rapidly duplicate the development task to identify the sort of mistakes a developer might make.

- Which of the following BEST explains a benefit of independent testing?
 - a) The use of an independent test team allows project management to assign responsibility for the quality of the final deliverable to the test team, so ensuring everyone is aware that quality is the test team's overall responsibility.
 - b) If a test team external to the organization can be afforded, then there are distinct benefits in terms of this external team not being so easily swayed by the delivery concerns of project management and the need to meet strict delivery deadlines.
 - c) An independent test team can work totally separately from the developers, need not be distracted with changing project requirements, and can restrict communication with the developers to defect reporting through the defect management system.
 - d) When specifications contain ambiguities and inconsistencies, assumptions are made on their interpretation, and an independent tester can be useful in questioning those assumptions and the interpretation made by the developer.
- Select ONE option.



- Which of the following tasks is MOST LIKELY to be performed by the test manager?
 - a) Write test summary reports based on the information gathered during testing.
 - b) Review tests developed by others.
 - c) Create the detailed test execution schedule.
 - d) Analyze, review, and assess requirements, specifications and models for testability.

- Given the following examples of entry and exit criteria:
 - 1. The original testing budget of \$30,000 plus contingency of \$7,000 has been spent.
 - 2. 96% of planned tests for the drawing package have been executed and the remaining tests are now out of scope.
 - 3. The trading performance test environment has been designed, set-up and verified.
 - 4. Current status is no outstanding critical defects and two high-priority ones.
 - 5. The autopilot design specifications have been reviewed and reworked.
 - 6. The tax rate calculation component has passed unit testing.
- Which of the following BEST categorizes them as entry and exit criteria:
 - a) Entry criteria 5, 6 Exit criteria 1, 2, 3, 4
 - b) Entry criteria 2, 3, 6 Exit criteria 1, 4, 5
 - c) Entry criteria 1, 3 Exit criteria 2, 4, 5, 6
 - d) Entry criteria 3, 5, 6 Exit criteria 1, 2, 4
- Select ONE option.

• Given the following priorities and dependencies for these test cases:

| Test case | Priority | Technical dependency on: | Logical dependency on: |
|-----------|----------|--------------------------|------------------------|
| TC1 | High | TC4 | |
| TC2 | Low | | |
| TC3 | High | | TC4 |
| TC4 | Medium | | |
| TC5 | Low | | TC2 |
| TC6 | Medium | TC5 | |

- Which of the following test execution schedules BEST considers the priorities and technical and logical dependencies?
 - a) TC1 TC3 TC4 TC6 TC2 TC5
 - b) TC4 TC3 TC1 TC2 TC5 TC6
 - c) TC4 TC1 TC3 TC5 TC6 TC2
 - d) TC4 TC2 TC5 TC1 TC3 TC6
- Select ONE option.

- Which of the following statements about test estimation approaches is CORRECT?
 - a) With the metrics-based approach, the estimate is based on test measures from the project and so this estimate is only available after the testing starts.
 - b) With the expert-based approach, a group of expert users identified by the client recommends the necessary testing budget.
 - c) With the expert-based approach, the test managers responsible for the different testing activities predict the expected testing effort.
 - d) With the metrics-based approach, an average of the testing costs recorded from several past projects is used as the testing budget.



- Which of the following BEST defines risk level?
 - a) Risk level is calculated by adding together the probabilities of all problem situations and the financial harm that results from them.
 - b) Risk level is estimated by multiplying the likelihood of a threat to the system by the chance that the threat will occur and will result in financial damage
 - c) Risk level is determined by a combination of the probability of an undesirable event and the expected impact of that event.
 - d) Risk level is the sum of all potential hazards to a system multiplied by the sum of all potential losses from that system.

- Which of the following is MOST likely to be an example of a PRODUCT risk?
 - a) The expected security features may not be supported by the system architecture.
 - b) The developers may not have time to fix all the defects found by the test team.
 - c) The test cases may not provide full coverage of the specified requirements.
 - d) The performance test environment may not be ready before the system is due for delivery.

- Which of the following is LEAST likely to be an example of product risk analysis CORRECTLY influencing the testing?
 - a) The potential impact of security flaws has been identified as being particularly high, so security testing has been prioritized ahead of some other testing activities.
 - b) Testing has found the quality of the network module to be higher than expected, so additional testing will now be performed in that area.
 - c) The users had problems with the user interface of the previous system, so additional usability testing is planned for the replacement system.
 - d) The time needed to load web pages is crucial to the success of the new website, so an expert in performance testing has been employed for this project.
- Select ONE option.



- You are performing system testing of a train booking system and have found that occasionally the system reports that there are no available trains when you believe that there should be, based on the test cases you have run. You have provided the development manager with a summary of the defect and the version of the system you are testing. The developers recognize the urgency of the defect and are now waiting for you to provide more details so that they can fix it.
- Given the following pieces of information:
 - 1. Degree of impact (severity) of the defect.
 - 2. Identification of the test item.
 - 3. Details of the test environment.
 - 4. Urgency/priority to fix.
 - 5. Actual results.
 - 6. Reference to test case specification.
- Apart from the description of the defect, which includes a database dump and screenshots, which of the pieces of information would be MOST useful to include in the initial defect report?
 - a) 1, 2, 6
 - b) 1, 4, 5, 6
 - c) 2, 3, 4, 5
 - d) 3, 5, 6
- Select ONE option.



- Given the following test activities and test tools:
 - 1. Performance measurement and dynamic analysis.
 - 2. Test execution and logging.
 - 3. Management of testing and testware.
 - 4. Test design.
 - A. Requirements coverage tools.
 - B. Dynamic analysis tools.
 - C. Test data preparation tools.
 - D. Defect management tools.
- Which of the following BEST matches the activities and tools?

- Which of the following is MOST likely to be used as a reason for using a pilot project to introduce a tool into an organization?
 - a) The need to evaluate how the tool fits with existing processes and practices and determining what would need to change.
 - b) The need to evaluate the test automation skills and training, mentoring and coaching needs of the testers who will use the tool.
 - c) The need to evaluate whether the tool provides the required functionality and does not duplicate existing test tools.
 - d) The need to evaluate the tool vendor in terms of the training and other support they provide.
- Select ONE option.