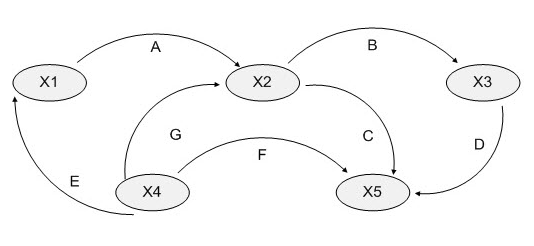
**Đề 7\_đáp án**

1. Which of following is NOT a "Test Analysis and Design" activity in "Fundamental Test Process"? [K2]
2. **Creating test suites from the test procedures for efficient test execution**
3. Identifying necessary test data to support the test conditions and test cases
4. Identifying and prioritizing test conditions based on analyses of test item, the specification, behavior and structure of the software
5. Creating bi-directional traceability between test basis and test cases
6. As a tester, you are collecting measures about defects. You recognize that after the first test cycle-covering all requirements-subsystem C has a defect density that is 150% higher than the average. Subsystem A on the other hand has a defect density that is 60% lower than the average. What conclusions for the next test cycle could you draw from this fact?..[K3]
7. Because we have already found many defects in subsystem C we do not need to test it much more.
8. **According to the testing principle "defect clustering" it is probable that subsystem C has still more hidden defects. Therefore we need to test subsystem C in more detail**
9. Observed defect density does not allow any conclusion about the amount of additional testing.
10. We focus testing on subsystem A, because we have found fewest defects in that module so far
11. You are running a written test which other testers have run previously. In addition this test has found bugs previously, and these bugs have been confirmed to be fixed. The test manager has encouraged you to vary the specific way in which you run the test, in the order of certain actions, the use of mouse versus hot-keys, and the particular.......values, based on the way users will use to the system. Which of the following is testing principle that could explain the test manager's directive?
12. Early testing
13. **Absence of errors fallacy**
14. Random testing
15. Pesticide paradox.
16. Which of the following are conclusion you could draw from the test principles?[K3]
17. Safety critical systems are tested exhaustively.
18. The testing coverage required in one organization may not be appropriate in another organization.
19. Risk assessment is required to understand how much testing is enough for each system
20. Safety critical systems are likely to need more coverage than non-safety critical system
21. Web sites cannot be tested because of the vast number of combinations of platform, browser, internet route and navigation options.
22. A, D and E are reasonable conclusions, the others are not
23. **B , C and D are reasonable conclusions, the others are not**
24. B , C and E are reasonable conclusions, the others are not
25. B, D, and E are reasonable conclusions, the others are not
26. How   many   test   cases   are   required   to   cover   100%  0 – switch   coverage   respectively   from   X2?



1. 4
2. 1
3. 3
4. **2**
5. Which is a correct explanation about non functional testing?..[K2]
6. Non functional testing shall not be executed in component testing, because non functional testing is required to integrate whole functions.
7. **Non functional testing is a testing which measure and judge various quality attributes.**
8. Non functional testing shall be executed based on ISO/IEC 9126 ( Software Product Quality)
9. Non functional testing is a testing which requires inspirations and experiences, and has difficulty with numeric evaluation.
10. Which of following is NOT correct regarding of Iterative-incremental Development Models? [K1]
11. This is the process of establishing requirements, designing, building and testing a system in a series of short development cycles.
12. **This model demonstrates the relationships between each phase of the life cycle and its associated phase of testing**
13. A system that is produced using this model is tested at several test levels during each iteration
14. Regression testing is increasing important on all iterations after the first one.
15. The following descriptions are related to acceptance testing. Which of the following alternative describes NOT true?
16. Site acceptance testing is to determine whether or not a component or system satisfies the user/customer needs and fits within the business process, normally including hardware as well as software
17. **Acceptance testing is formal testing with respect to user needs, requirements, and business the acceptance criteria and to enable the user, customers or other authorized entity to determine whether or not to accept the system.**
18. User acceptance testing verifies the fitness for use of the system and usability of business perspective.
19. Regulation acceptance testing is performed against any regulations that must be adhered to, such as governmental, legal or safety regulations.
20. Which of the following alternative describes the main difference between “system testing” and “Acceptance testing”?
21. System testing is done on the development platform, while acceptance testing is done on the customer platform.
22. **System testing is done against the developers’ interpretation of the requirements, acceptance testing against customer understanding.**
23. System testing concentrates on functional testing, while acceptance testing concentrates on nonfunctional testing.
24. Acceptance testing is a regression test for the changes implemented during system testing.
25. Which of following is NOT about functional testing? [K2]
26. This testing is considers that external behavior or the software (black- box testing)
27. Security testing investigates the functions relating to detection of threats
28. **This testing describes the tests required to measure characteristics of systems and software that can be quantified on a varying scale.**
29. Interoperability testing evaluates the capability of the software product to interact with one or more specified components of systems
30. What is the Cyclomatic Complexity of the code below? [K3]

Public void ProcessPages() {

While (nextPage!=true) {

If ((lineCount<=linePerPage) && (status != Status Cancelled) && (morePages== true)) {

//…

}}}

1. 4
2. **5**
3. 6
4. 8
5. What is the fundamental difference between “static analysis” and test? [K2]
6. Static analysis can be applied at any time during the software life cycle. Test can only be applied after implementation.
7. **Static analysis is done without executing the test object. A test is an examination during “ run time”**
8. Static analysis checks only documents without a formal structure. Test checks software system
9. Static analysis is applied only in the early phrases, test only in the phases of the software life cycle.
10. Which of following is related a typical “Rework” activity or formal review? [K1]
11. **Recording update status of defect in formal review**
12. Checking that defects have been addressed
13. Gathering metrics
14. Checking on exit criteria for more formal review type.
15. Which of the following statement is true about Static Analysis? [K1]
16. **Static analysis is an analysis without execution of the test object (under analysis)**
17. Static analysis serves for creating test cases
18. Static analysis is the precondition for executing the dynamic analysis
19. Static analysis is the check of the program code for compliance with the documentation rules.
20. Which of the statements about reviews are correct? [K3]
21. It is not useful to involve testers in review of specifications because it can bias them.
22. Reviews are useful because they help management to assign responsibility of failure on individual developers
23. Reviews can help find bugs early resulting in savings of cost.
24. Requirement of additional time for reviews is likely to result in longer development cycle.
25. A & C are true; B & D are false
26. C & D are true; A & B are false
27. D is true; A, B, C are false
28. **C is true; A, B, D are false**
29. Which of the following is NOT a typical “Planning” activity of formal review? [K1]
30. Defining the review criteria
31. Defining the entry and exit criteria for more formal review types.
32. Selecting which parts of documents to review.
33. **Preparing for the review meeting by reviewing the documents**
34. As a Tester, you are testing for below program. How many test cases do you need for 100% decision coverage?

…………..

If (condition A)

Then

Else

END IF

If (condition B)

Then

END IF

1. 1
2. **2**
3. 4
4. 5
5. Which alternative contains ONLY defects with can be discovered by static analysis? [K3]
6. Referencing a variable with a undefined value, unreachable (dead) code, security vulnerabilities, race conditions.
7. **Violations of coding standards, Referencing a variable with an undefined value, unreachable (dead) code, security vulnerabilities.**
8. Referencing a variable with an undefined value, deadlocks, unreachable (dead) code, security vulnerabilities.
9. Referencing a variable with an undefined value, unreachable (dead) code, inconsistent interface between modules and components, race conditions.
10. In the technical review process, which is true? [K2]
11. There is less focus on higher level and related documents.
12. The moderator does not perform a formal entry check, because the document is not ready yet
13. The steps are the same as in the inspection process, but the objective is different.
14. **A is true; B, C are false**
15. A and B are true, C is false
16. A,B, C are true
17. A, C are true, B is false
18. You are testing a credit card only, run attended gasoline pump. Once the credit card is validated, the customer has selected the desired grade, and the pump is ready to pump, the customer may cancel the transaction and owe nothing ;however, once the pumping starts, gasoline will be sold in hundredths (0.01) of a gallon. The pump continues to pump until the user stops or a maximum of 50.00gallons has been dispensed. Which of the following is a minimum set of gasoline purchase transactions (in gallons of gasoline dispensed) that covers the boundary values for this variable?
19. **0.00,0.01,50.00,50.01**
20. -0.01,0.00,25.00,49.99,50.00,50.01,75.00
21. 0.00,0.01,50.00,70.00
22. 0.00,20.00
23. A field on the screen shall be filled in with a text with a length of up to 10 characters.

Which result is a correct equivalence partition?

a) Invalid classes =no value given, longer than 11 characters.

Valid classes = value given, length between 1 and 10 characters.

**b) Invalid classes =no value given, longer than 10 characters.**

**Valid classes = value given, length between 1 and 10 characters.**

c) Invalid classes =no value given, longer than 10 characters, other characters than a to z.

Valid classes = value given, length between 1 and 10 characters, only characters from a to z.

d) Invalid classes =no value given, longer than 10 characters.

Valid classes = value given, length between 1 and 10 characters, characters covering a to z and A to Z.

1. Which is a correct cornbination to achieve 100% branch coverage for following code?.. [K3]

Public void foo(int x, int y) {

If (x!=0) {

Y =y/x;

If (y>0) {

Y =y -1;

}

}

}

1. **(x=1, y=1), (x=0, y=0), (x=1, y=0)**
2. (x=1, y=1), (x=1, y=-1), (x=1, y=0)
3. (x=1, y=1), (x=0, y=0)
4. (x=1, y=1)
5. Given the following fragment of code, how many tests are required for 100% decision coverage?

if width > length

then

biggest\_dimension = width

if height > width

then

biggest\_dimension = height

end\_if

else

biggest\_dimension = length

if height > length

then

biggest\_dimension = height

end\_if

end\_if

1. 3
2. **4**
3. 2
4. 1
5. As a Tester, You are testing an automobile with a software-controlled on/off switch for the motor

The motor has two states, not running and running. There are two events that can occur, an on signal and an off signal

If the motor is not running, pressing the on/off switch sends the software an on signal that tells the software to try (for up to five seconds) to start the motor. If the motor fails to start, the on/off switch can be pressed again to retry the operation as many times as the drives would like. In other words, there are two conditions, success and fail, that influence the resulting state of the motor and the action taken by the software based on the on signal.

If the motor is running, the on/off switch tells the software to stop the motor immediately if it would be safe to do so. If the motor cannot be safely stopped, the software will the driver a verbal warning: “motor cannot be safely stopped”. In other words, there are two conditions, safe and unsafe, that influence the resulting state of the motor and the action taken by the software based on the off signal.

Assume you want to describe this behavior in a state transition table to design s set of tests for both vail and invalid situations. Assume each row in the tables gives the initial state, the event/ condition combination, the resulting state, and the action taken.

How many rows will this table have?..[K3]

1. 2
2. 4
3. 6
4. **8**
5. Which of the following is NOT true about Condition Determination Testing and Coverage?[K3]
6. **100% decision condition coverage implies 100% condition determination coverage**
7. A white box test design technique in which test cases are independently affect a decision outcome that have been exercised by a test case suite.
8. The percentage of all single condition outcomes that independently affect a decision outcome that have been exercised by a test case suite.
9. The possible combination of true/false conditions that can affect decisions are identified.
10. Which of the following statements show test design specification is correct? [K2]
11. Specification identifier
12. Features to be tested
13. Approach refinements
14. Test identification
15. Test items
16. A,B,C,E are true; D is false
17. D and E are true; A, B and C are false
18. A, D and E are true; B and C are false
19. **A, B, C, D and E are true**
20. Which of following is a typical tester’s tasks? [K1]
21. Write test summary reports based on the information gathered during testing
22. Select tools to support testing and organize any training in tool use for testers
23. **Analyze, review and assess user requirements, specifications and models for testability**
24. Contribute the testing perspective to other project activities, such as integration planning.
25. Which of following is NOT a Test Planning Activity in Test Planning? [K1]
26. Determining the scope and risks and identifying the objectives of testing
27. Integrating and coordination the testing activities into the software life cycle activities
28. Assigning resources for the different activities defined
29. **Estimating the tasks based on estimates made by the owner of the tasks or by experts**
30. Which of following Test Approach includes Exploratory testing where testing is more reactive to events than pre-planned, and where execution and evaluation are concurrent tasks? [K2]
31. **Dynamic and heuristic approach**
32. Analytical Approach
33. Model-based Approach
34. Regression-averse approaches
35. Dynamic and--------------approaches, such as exploratory testing were testing is more reactive to events than pre-planned, and where execution and evaluation are concurrent tasks…[K2]
36. **Heuristic**
37. Exploratory
38. Regression-averse
39. Analytical
40. Which of following is NOT correct about Metrics which should be collected during and at the end of a test level in order to assess? [K2]
41. The adequacy of the test objectives for that test level
42. The adequacy of the test approaches taken
43. The effectiveness of the testing with respect to the objectives
44. **The adequacy of testers anticipate defects based on experience**
45. Which of following is NOT a Test control actions in Test Progress monitoring and control? [K1]
46. Making decisions based on information from test monitoring
47. **Setting an exit criterion requiring fixes to have been re-tested.**
48. Re-prioritizing test when an identified risk occurs.
49. Change the test schedule due to availability or unavailability of test environment.
50. Which is a correct explanation about product risk?..[K1]
51. Due to shortage of budgets, testing members can’t be assigned to a testing team as planned.
52. **Delivery of software which may include some easy bugs.**
53. Due to delay of development phase, period of test phase get to be shortened
54. Due to a wrong order of testing tools, the progress of testing phases gets to delay.
55. Which of following is a Project Risk? [K1]
56. **Improper attitude toward or expectations of testing**
57. The potential that the software/hardware could cause harm to an individual or company
58. Poor data integrity and quality
59. Software that does not perform its intended functions
60. When conducting reviews, psychological sensitivity is required. Which mistake often occurs when conducting reviews and may lead to interpersonal problems within teams?...[K2]
61. Testers and reviewers expect that defects in the software product are already found and fixed by the developers.
62. **Testers and reviewers communicate defects as criticism against humans instead of against the software product.**
63. Due to time constraints, tester and reviewers do not believe they can afford enough time to find failures.
64. Testers and reviewers are not sufficiently trained to accurately identify failures and faults in the item under review.
65. An estimate of resources should be made so that an organization can create a schedule for testing. Which of the following approaches can be used for creating an estimate?
66. A skills-based approach, in which the estimate is based on all the tester’s skills.
67. An expert-based approach, in which the owner or other expert creates the estimate.
68. A metrics-based approach, in which the estimate is based on previous testing efforts
69. A bottom-up approach, in which each tester estimates their work and all estimates are integrated
70. II,III,IV
71. I,III,IV
72. I,IV
73. **II,III**
74. Which of following is correct to be defined as the chance of an event, hazard, threat or situation occurring and resulting in undesirable consequences or a potential problem? [K1]
75. Defect
76. Incident
77. **Risk**
78. Failure
79. Which tools are used to generate test inputs or executable tests? [K1]
80. Test data preparation tools
81. **Test execution tools**
82. **Test design tool**
83. Test comparators
84. Which of the following is characteristics of test management tools?.. [K1]
85. Logging of test results and generation of progress reports.
86. Improve the efficiency of testing activities by automating repetitive tasks.
87. Independent version control or interface with an external configuration management tool.
88. Assignment of actions to people (e.g. fix or confirmation test)
89. B & D
90. A, B & D
91. **A & C**
92. B, C & D
93. Which is a wrong explanation about static analysis tools?...[K2]
94. Static analysis tools measure a complexity of source codes.
95. **Static analysis tools measure a codes coverage and an effectiveness of static testing.**
96. Static analysis tools find defects of certain patterns of source codes.
97. Static analysis tools measure level of accordance with coding rules.