

BCS TTA1 Exam

Volume: 65 Questions

Question No : 1

Definition-use pairs are identified during which of the following static analysis activities?

Number of correct answers: 1

- A. Control flow analysis
- B. Data flow activities
- C. Coding standards analysis
- D. Cyclomatic complexity analysis

Answer: B

Question No : 2

As part of a risk analysis, technical risks are analyzed. Which TWO factors influence technical risk?

Number of correct answers: 2

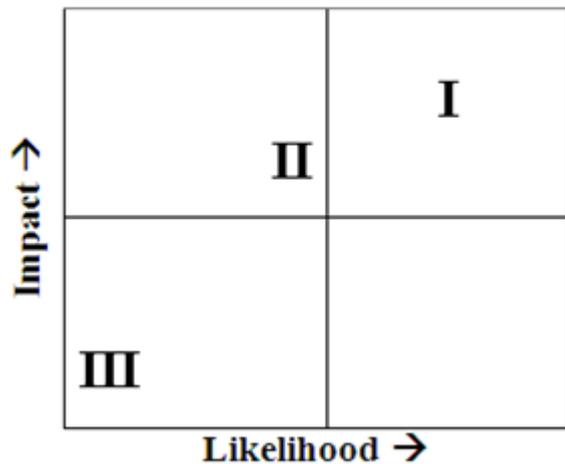
- A. Complexity of technology
- B. Frequency of use of the affected failure
- C. Interfacing and integration issues
- D. Damage to image
- E. Lack of reasonable workaround

Answer: A,C

Question No : 3

The result of a product risk analysis performed on components I, II and III of the airplane control system shows the following risk matrix:

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The project wants to mitigate the risks by defining different types of coverage depending on the risk level of the components. Which of the following would be a meaningful solution for setting the coverage targets?

Number of correct answers: 1

- A. I: Condition determination coverage, II: Decision Coverage, III: Statement coverage
- B. I: Condition determination coverage, II: Statement coverage, III: Decision coverage
- C. I: Decision coverage, II: Condition determination coverage, III: Statement Coverage
- D. I: Multiple condition coverage, II: Decision coverage, III: Condition determination coverage

Answer: A

Question No : 4

If you are flying with an economy ticket, there is a possibility that you may get upgraded to business class, especially if you hold a gold card in the airline's frequent flier program. If you don't hold a gold card, there is a possibility that you will get 'bumped' off the flight if it is full and you check in late. This is shown in the figure hereafter. Note that each box (i.e. statement) has been numbered.

Three tests have been run:

Test 1: Gold card holder who gets upgraded to business class

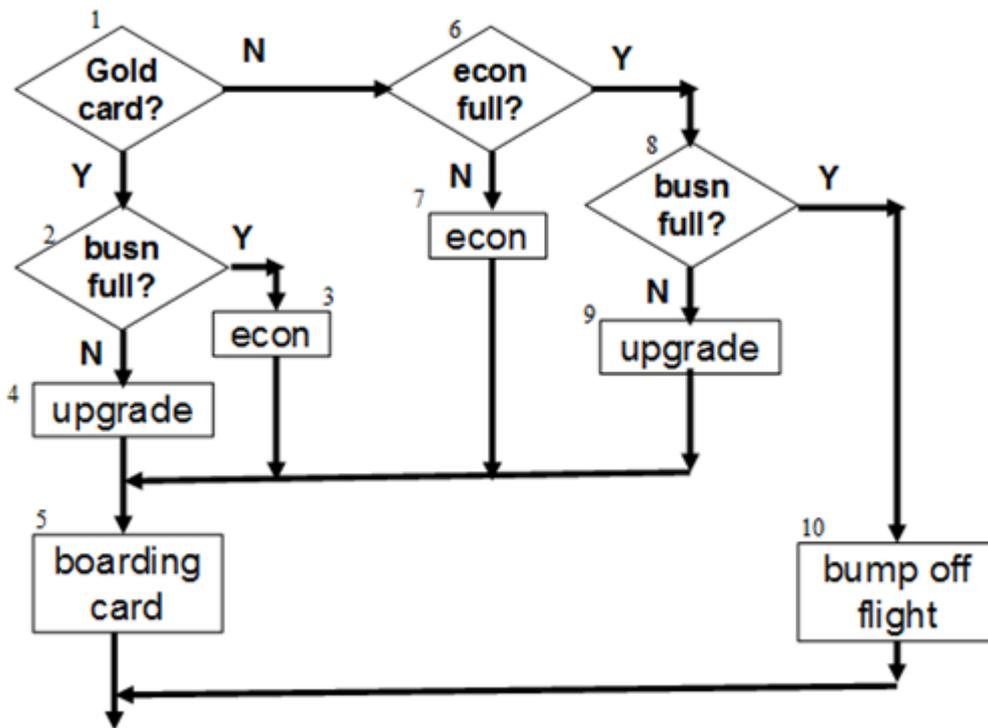
Test 2: Non-gold card holder who stays in economy

Test 3: A person who is bumped from the flight

What is the statement coverage of these three tests?

Number of correct answers: 1

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- A. 60%
- B. 70%
- C. 80%
- D. 90%

Answer: C

Question No : 5

An embedded software company is considering to improve the quality of its software components to be delivered to the integration team. After studying various experience papers that report a higher level of quality for software components, two main alternative techniques are identified: static analysis and dynamic analysis. In deciding which one is most applicable and how they relate to each other a detailed study is performed. Which of the following are TWO key similarities between static analysis and dynamic analysis?

Number of correct answers: 2

- A. Both are performed using requirements as its major input document
- B. Both are usually undertaken by integration testers
- C. Both are usually undertaken by development during coding and unit testing

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- D. Both are related to reviews
- E. Both usually use a tool

Answer: C,E

Question No : 6

If we say that a set of tests has achieved 100% structural decision coverage on a particular module in a program, what does that mean?

Number of correct answers: 1

- A. That all bugs present in that module were necessarily revealed by those tests.
- B. That every control flow branch had been executed at least once by those tests.
- C. That every dataflow in that module was exercised at least once by those tests.
- D. That every path through that module was exercised at least once by those tests.

Answer: B

Question No : 7

Which of the following is a dynamic analysis technique related to improving application performance?

Number of correct answers: 1

- A. Code complexity analysis
- B. Profiling
- C. Network package sniffing
- D. Spelling and grammar checking

Answer: B

Question No : 8

A component has been analyzed as being highly critical. Which of the following structure-based test design techniques provides the highest level of coverage?

Number of correct answers: 1

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- A. Statement testing
- B. Decision testing
- C. Condition determination testing
- D. Multiple condition testing

Answer: C

Question No : 9

Consider the following fault attack: "Force all possible incoming errors from the software/OS interfaces to the application". Which of the following is the kind of failure you are looking for when using this attack?

Number of correct answers: 1

- A. Application crashes when unsupported characters are pasted into an input field using the windows clipboard
- B. Front page of the application has incorrect spelling of the company name
- C. Application fails to display financial numbers in the correct currency format in reports
- D. Application miscalculates total monthly balance due on credit cards

Answer: A

Question No : 10

How many test cases would be needed to achieve 100% decision coverage?

Number of correct answers: 1

- A. 1
- B. 2
- C. 3
- D. 4

Answer: A