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Started on	Saturday, 23 November 2024, 2:11 PM
State	Finished
Completed on	Saturday, 23 November 2024, 2:25 PM
Time taken	13 mins 41 secs
Marks	14.00/25.00
Grade	2.80 out of 5.00 (56%)

Question 1

Correct

Mark 1.00 out of 1.00

What is the key feature of the CBAM method?

- ☐ a. Direct implementation of scenarios.
- ☐ b. Weighting of response levels.
- ☐ c. Interpolation of cost benefits.
- ☒ d. Economic evaluation of architectural designs. ✓

The correct answer is: Economic evaluation of architectural designs.

Question 2

Correct

Mark 1.00 out of 1.00

What is the focus of Step 6, "Determine Utility through Interpolation," in CBAM?

- ☒ a. Interpolating utility values for response levels. ✓
- ☐ b. Calculating the expected cost of strategies.
- ☐ c. Assigning utilities to quality attributes.
- ☐ d. Collating and refining scenarios.

The correct answer is: Interpolating utility values for response levels.

Question 3

Correct

Mark 1.00 out of 1.00

Who are the primary stakeholders in the CBAM process?

- ☒ a. All of the above. ✓
- ☐ b. Business stakeholders and quality analysts.
- ☐ c. End-users and software developers.
- ☐ d. Architects and project managers.

The correct answer is: All of the above.

Question 4

Incorrect

Mark 0.00 out of 1.00

What is the primary goal of Step 7, "Calculate Total Benefit," in CBAM?

- ☐ a. Determining the total benefit of architectural strategies.
- ☒ b. Calculating the total cost of architectural strategies. ✗
- ☐ c. Assigning utilities to quality attribute response levels.
- ☐ d. Refining and prioritizing scenarios.

The correct answer is: Determining the total benefit of architectural strategies.

Question 5

Incorrect

Mark 0.00 out of 1.00

In the context of CBAM, what is meant by "normalization"?

- ☐ a. Interpolating expected values.
- ☒ b. Assigning utilities to quality attributes. ✗
- ☐ c. Bringing all costs and benefits to a common scale.
- ☐ d. Refining scenarios to meet constraints.

The correct answer is: Bringing all costs and benefits to a common scale.

Question 6

Correct

Mark 1.00 out of 1.00

What does Step 8, "Choose Architectural Strategies," focus on in CBAM?

- ☐ a. Prioritizing scenarios based on cost.
- ☐ b. Assigning utility to scenarios.
- ☐ c. Refining architectural strategies.
- ☒ d. Choosing strategies based on VFC and constraints. ✓

The correct answer is: Choosing strategies based on VFC and constraints.

Question 7

Incorrect

Mark 0.00 out of 1.00

Which of the following is a key component of cost determination in CBAM?

- ☐ a. Interpolating utility values.
- ☐ b. Estimating resource consumption.
- ☒ c. Assigning weights to scenarios. ✗
- ☐ d. Refining architectural strategies.

The correct answer is: Estimating resource consumption.

Question 8

Incorrect

Mark 0.00 out of 1.00

What is the significance of determining benefit and normalization in CBAM?

- ☐ a. To calculate the economic growth of a project.
- ☐ b. To assign costs to different scenarios.
- ☒ c. To ensure the architectural strategies are feasible. ✗
- ☐ d. To compare scenarios on a common scale.

The correct answer is: To compare scenarios on a common scale.

Question **9**

Correct

Mark 1.00 out of 1.00

In the NASA ECS project, what was the main application of CBAM?

- ☐ a. Improving hardware performance.
- ☒ b. Evaluating economic feasibility of scenarios. ✓
- ☐ c. Designing a new software architecture.
- ☐ d. Refining the existing architecture.

The correct answer is: Evaluating economic feasibility of scenarios.

Question **10**

Incorrect

Mark 0.00 out of 1.00

What is the practical application of utility curves in CBAM?

- ☐ a. To prioritize scenarios for refinement.
- ☐ b. To calculate the total cost of strategies.
- ☐ c. To assign utility values based on response levels.
- ☒ d. To normalize scenarios for economic evaluation. ✗

The correct answer is: To assign utility values based on response levels.

Question **11**

Incorrect

Mark 0.00 out of 1.00

What does VFC stand for in CBAM?

- ☒ a. Value Functional Curve. ✗
- ☐ b. Variable Factor Computation.
- ☐ c. Value for Constraints.
- ☐ d. Value for Cost.

The correct answer is: Value for Cost.

Question **12**

Incorrect

Mark 0.00 out of 1.00

What is the outcome of Step 5, "Develop Architectural Strategies," in CBAM?

- ☐ a. Collated and refined scenarios.
- ☐ b. Interpolated utility values for response levels.
- ☐ c. Developed architectural strategies and their response levels.
- ☒ d. A prioritized list of scenarios. ❌

The correct answer is: Developed architectural strategies and their response levels.

Question **13**

Correct

Mark 1.00 out of 1.00

What is the focus of Step 3, "Prioritize Scenarios," in the CBAM process?

- ☐ a. Determining utility through interpolation.
- ☐ b. Refining scenarios for better clarity.
- ☐ c. Calculating the total cost of strategies.
- ☒ d. Prioritizing scenarios based on importance. ✔️

The correct answer is: Prioritizing scenarios based on importance.

Question **14**

Correct

Mark 1.00 out of 1.00

What is the purpose of interpolating utility values in CBAM?

- ☐ a. To determine the expected benefits.
- ☐ b. To calculate costs for response levels.
- ☐ c. To normalize the utility across scenarios.
- ☒ d. To evaluate quality attribute response levels. ✔️

The correct answer is: To evaluate quality attribute response levels.

Question **15**

Correct

Mark 1.00 out of 1.00

Why are scenarios collated in Step 1, "Collate Scenarios," of CBAM?

- ☐ a. To create a prioritized list.
- ☒ b. To gather all relevant considerations for evaluation. ✓
- ☐ c. To refine them for accuracy.
- ☐ d. To determine their cost constraints.

The correct answer is: To gather all relevant considerations for evaluation.

Question **16**

Incorrect

Mark 0.00 out of 1.00

Which textbook is referenced for the CBAM method?

- ☒ a. Software Engineering in Practice. ✗
- ☐ b. Software Architecture in Practice – Third Ed.
- ☐ c. Software Development Strategies.
- ☐ d. Principles of Software Design.

The correct answer is: Software Architecture in Practice – Third Ed.

Question **17**

Correct

Mark 1.00 out of 1.00

What does a utility-response curve represent?

- ☒ a. The relationship between quality attributes and utility. ✓
- ☐ b. The economic growth of a project.
- ☐ c. The architectural design process.
- ☐ d. The cost incurred over time.

The correct answer is: The relationship between quality attributes and utility.

Question **18**

Incorrect

Mark 0.00 out of 1.00

What is the first step in the CBAM process, "Collate Scenarios"?

- ☒ a. Assigning utility values. ✖
- ☐ b. Collating scenarios.
- ☐ c. Prioritizing scenarios.
- ☐ d. Choosing architectural strategies.

The correct answer is: Collating scenarios.

Question **19**

Correct

Mark 1.00 out of 1.00

What is the primary purpose of Cost Benefit Analysis Method (CBAM)?

- ☐ a. To ensure cost minimization in software development.
- ☒ b. To evaluate the economic feasibility of different scenarios. ✔
- ☐ c. To create architectural designs for systems.
- ☐ d. To determine the utility-response of software tools.

The correct answer is: To evaluate the economic feasibility of different scenarios.

Question **20**

Incorrect

Mark 0.00 out of 1.00

Which step, "Develop Architectural Strategies," involves creating strategies in the CBAM process?

- ☐ a. Step 7
- ☒ b. Step 8 ✖
- ☐ c. Step 5
- ☐ d. Step 4

The correct answer is: Step 5

Question **21**

Correct

Mark 1.00 out of 1.00

What is the importance of Step 4, "Assign Utility," in the CBAM process?

- ☐ a. Calculating the total benefit of strategies.
- ☐ b. Collating scenarios.
- ☒ c. Assigning utility values to quality attributes. ✓
- ☐ d. Refining architectural strategies.

The correct answer is: Assigning utility values to quality attributes.

Question **22**

Correct

Mark 1.00 out of 1.00

What is the purpose of weighting in economic evaluations?

- ☒ a. To determine the importance of different scenarios. ✓
- ☐ b. To calculate the total economic value.
- ☐ c. To refine the architecture design.
- ☐ d. To normalize costs and benefits.

The correct answer is: To determine the importance of different scenarios.

Question **23**

Correct

Mark 1.00 out of 1.00

What was the key benefit of using CBAM in the NASA ECS project?

- ☐ a. Better prioritization of quality attributes.
- ☐ b. Improved cost efficiency.
- ☒ c. All of the above. ✓
- ☐ d. Enhanced economic evaluation of scenarios.

The correct answer is: All of the above.

Question **24**

Incorrect

Mark 0.00 out of 1.00

What is the result of applying CBAM to a project?

- ☐ a. A set of quality attribute response levels.
- ☐ b. A list of scenarios and their utilities.
- ☐ c. An optimized set of architectural strategies.
- ☒ d. A cost-minimization strategy for software design. ✖

The correct answer is: An optimized set of architectural strategies.

Question **25**

Correct

Mark 1.00 out of 1.00

What is an example of a quality attribute in CBAM?

- ☐ a. Cost
- ☐ b. Strategy
- ☐ c. Scenario
- ☒ d. Performance ✔

The correct answer is: Performance

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