MCQ

Chapter 10: Specifying Operations

Q1. What is the reason for specifying operations from design perspective?
A. Ensure users' needs are understood
B. Guide programmer to an appropriate implementation
C. Verify that the method does what was originally intended
D. Whether methods produce results within response time assumed
Answer: B

Q2. What is the reason for specifying operations from analysis perspective?
A. Ensure users' needs are understood
B. Guide programmer to an appropriate implementation
C. Verify that the method does what was originally intended
D. Whether methods produce results within response time assumed
Answer: A

Q3. What is the reason for specifying operations from test perspective?
A. Ensure users' needs are understood
B. Guide programmer to an appropriate implementation
C. Verify that the method does what was originally intended
D. Whether methods produce results within response time assumed
Answer: C

Q4. A service can be defined as _____.
Which of the following best fits the blank space?
A. a contract between the participating objects
B. a legal agreement between two entities
C. a functionality of a system that is bound to a rule
D. none of the above
Answer: A

Q5. Which of the following is or are true about contacts?
A. Contracts focus on inputs and outputs
B. Contracts hide Irrelevant details
C. Contracts exposes how service functionality will be delivered
D. Contacts emphasize service delivery, and ignores implementation
Answer: A, B, D

Q6. Which one is an operation without side-effect?
A. An operation destroys object instances
B. An operation sets attribute values
C. An operation carries out calculations
D. An operation requests data but do not change anything
Answer: D

Q7. Which approach of logic specification focuses on how the operation might work?
A. Algorithmic
B. Non-algorithmic
Answer: A

Q8. Which approach of logic specification focuses on *what* the operation should achieve?
A. Algorithmic
B. Non-algorithmic
Answer: B

Q9. Which approach of logic specification are appropriate where correct result matters more than method to arrive at it?
A. Algorithmic
B. Non-algorithmic
Answer: B

Q10. Algorithmic operation specifications are _____ type as they focus on how the operation might work.
A. White box
B. Black box
Answer: A

Q11. Non-algorithmic operation specifications are _____ type as box— box—they focus on *what* the operation should achieve.
A. White box
B. Black box

Answer: B

Q12. Which of the following is or are **not** non-algorithmic techniques for specifying operations?
A. Pre- and Post-conditions pair
B. Decision table
C. Decision tree
D. Activity Diagrams
Answer: D

Q13. Which approaches of logic specification are appropriate where users must understand the procedure for arriving at a result?
A. Algorithmic
B. Non-algorithmic
Answer: A

Q14. Which of the following is or are **not** algorithmic techniques for specifying operations?
A. Structured English
B. Decision table
C. Decision tree
D. Activity Diagrams
Answer: B, C

Q15. Which of the following is or are the control structure in structured English?
A. Sequences of instructions
B. Selection of alternative instructions (or groups of instructions)
C. Iteration (repetition) of instructions (or groups of instructions)
D. Logic functions such as AND(), OR(), NOT()
Answer: A, B, C

Q16. How structured English differ from pseudo-code?
A. The syntax and vocabulary of Structured English resemble those of a specific programming language, while pseudo-code is language-neutral
B. The syntax and vocabulary of pseudo-code resemble those of a specific programming language, while Structured English is language-neutral
C. Pseudo-code is useful only for procedural programming languages, such as C, while Structured English is useful for any programming language, including object-oriented languages.
D. There is no difference
Answer: B

Q17. Which of the following best describes the main use of OCL?
A. OCL is used to describe the interaction between objects in more detail than is shown graphically in an interaction sequence diagram
B. OCL is used specifically to document operation specifications.
C. OCL is used to give precise definition to any constraints in a UML model that cannot be expressed clearly and unambiguously in a graphical notation.
Answer: C

Q18. Which of the following is or are the parts of an OCL statement?
A. Context
B. Property
C. Operation
D. State
Answer: A, B, C

Q19. Consider the OCL expression
Company
self.CEO->size <= 1
What does it mean?
A. The company cannot have more than CEO
B. The company may not have a CEO
C. The CEO of the company must be 1 foot high
D. There is no position higher than the CEO in the company
Answer: A, B

Q20. Consider the OCL expression
Person
self.husband->notEmpty **implies**
self.gender = female
What does it mean?
A. If the person has a husband, the person is a female
B. A female must have husband

C. A female must marry a male
D. A female cannot marry a female

Answer: A