

Object-Oriented Methodology Quiz 04

2024 Fall Semester

21 CST H3Art

Final Score: 85/100

1. What is the main purpose of a System Sequence Diagram SSD?

- A. To show input and output events related to the system**
- B. To illustrate the system's internal architecture
- C. To represent the system's user interface
- D. To describe how software objects interact

2. Which of the following is NOT a source of external events for a software system?

- A. Faults or exceptions
- B. Timer events
- C. Internal object interactions**
- D. Mouse clicks

3. SSDs are most important for which phase of the Unified Process?

- A. Transition
- B. Construction
- C. Inception
- D. Elaboration**

X 4. The SSD operations can serve as the starting point for designing what?

- A. User stories
- B. Use cases**
- C. System requirements
- D. Collaborating objects

Correct Answer: D

5. Which of the following guidelines is relevant to naming system events?

- A. Focus on the implementation details
- B. Include method signatures
- C. Use abstract level of intention**
- D. Use physical input device names

6. What is the primary input to creating operation contracts?

- A. SSDs**
- B. Domain model
- C. Use cases
- D. System architecture

7. What section of an operation contract describes the state of objects after the operation completes?

- A. Operation
- B. Cross-references
- C. Postconditions**
- D. Preconditions

8. What is the relationship between SSDs and use cases?

- A. SSDs are derived from use cases**
- B. SSDs and use cases are unrelated
- C. Use cases are derived from SSDs
- D. SSDs are independent of use cases

✗ 9. What is the recommended approach to writing postconditions?

- A. Use active voice and present tense**
- B. Use passive voice and past tense
- C. Focus on method signatures
- D. Include implementation details

Correct Answer: B

10. What does OCL stand for in the context of UML?

- A. Object Class Language
- B. Object Configuration Language
- C. Object Creation Language
- D. Object Constraint Language**

11. In the "enterItem" operation contract, what postcondition indicates an association formed?

- A. A SalesLineItem instance was created
- B. sli.quantity became quantity
- C. There is a sale underway
- D. sli was associated with the current Sale**

12. When are operation contracts most likely to be useful in the UP?

- A. For complex and subtle system operations**
- B. During inception
- C. For all system operations
- D. After the system is deployed

13. What is the purpose of preconditions in an operation contract?

- A. To describe the system architecture
- B. To list external actors
- C. To define non-trivial assumptions before operation execution**
- D. To specify the system requirements

14. Which of the following is a valid reason to update the domain model during contract creation?

- A. To add unnecessary details
- B. To enforce design choices
- C. To reflect new conceptual classes or associations**
- D. To change existing use cases

15. What does the term "black box" refer to in the context of SSDs?

- A. External actors interacting with the system
- B. The system's internal architecture
- C. The system as a whole, without showing its internals**
- D. The domain model

✗ 16. What is the primary difference between a system operation and a method?

- A. Methods handle messages, while system operations handle events**
- B. System operations are part of the public interface, while methods are private
- C. System operations are abstract, while methods are concrete
- D. Methods are implemented, while system operations are not

Correct Answer: C

17. In the example SSD for "Process Sale," which event initiates the sale?

- A. makeNewSale**
- B. makePayment
- C. endSale
- D. enterItem

18. What is the main advantage of using SSDs over detailed use case descriptions?

- A. SSDs enforce a strict format
- B. SSDs are easier to create
- C. SSDs replace the need for use cases
- D. SSDs provide a visual representation of events**

✗ 19. What is the UML notation for showing loops in sequence diagrams?

- A. Occurrence specifications
- B. Fragment markers
- C. Combined fragments**
- D. Interaction frames

Correct Answer: D

20. What is the primary purpose of the Glossary in the UP?

- A. To provide detailed explanations of artifacts**
- B. To store system operation contracts
- C. To define system requirements
- D. To track system bugs

21. SSDs are a detailed visual representation of the system's internal architecture.

✗

22. SSDs are generated from inspection of use cases.

✓

23. SSDs should show all scenarios of a use case, not just the main success scenario.

✗

24. The UML defines a specific type of diagram called a "system sequence diagram."



25. Postconditions describe actions to be performed during an operation.



26. Operation contracts are typically written during the inception phase of the UP.



27. SSDs are useful for understanding the interface and collaborations of existing systems.




28. It is recommended to include use case text directly in SSDs.



 29. The UML defines operations using pre- and post- conditions.



Correct Answer: 

30. System operations handle input system events, just as methods handle messages.



31. The primary input to creating SSDs is the domain model.



32. Contracts are never necessary for understanding the details of a system operation.



33. SSDs show the system as a white box, revealing its internal workings.




34. Operation contracts may be considered part of the UP Use-Case Model.



 35. SSDs are not useful for documenting the architecture of a system.



Correct Answer: 

36. The name of a system event should capture the intent of the operation.



37. It is recommended to create SSDs for all scenarios, including alternative and exception scenarios.



38. The purpose of preconditions in an operation contract is to describe the state of the system before execution.



39. Operation contracts should always be written in the OCL language.



40. SSDs are most important during the construction phase of the UP.

