QUIZ - 7

Module – 05

Batch ID – JEE/CGNT-M/54/01

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**Total Marks – 20**

**Student Name: Student ID:**

1. What is the advantage of using contracts in operation specification?

| **A)** | A contract cannot be broken and thus the software will be more reliable in operation. |
| --- | --- |
| **B)** | **A contract encourages encapsulation by concentrating on the service that an object will provide to other objects and by ignoring the way that the service is to be achieved.** |
| **C)** | A contract encourages better design and testing by specifying exactly how an object will achieve a service that it is to provide to other objects. |

2. One of the following would not normally be included in a contract. Which one?

| **A)** | The operation signature. |
| --- | --- |
| **B)** | Events that the operation will transmit to other objects. |
| **C)** | **The object identifiers of other objects to which events will be transmitted.** |

3. How does an algorithmic technique differ from a non-algorithmic technique?

| **A)** | **Algorithmic techniques describe the internal logic of an operation, while non-algorithmic techniques do not.** |
| --- | --- |
| **B)** | Algorithmic techniques describe only the external interface of an operation, whereas non-algorithmic techniques also describe the internal details. |
| **C)** | Algorithmic techniques are used to describe algorithmically complex operations, while non-algorithmic techniques are used to describe only simple operations. |

4. Only one of the following is an algorithmic technique. Which one is it?

| | **A)** | Decision table. **B)** **Activity diagram C)** Pre- and post-condition pair | | --- | --- | |
| --- | --- | --- |

5.Only one of the following is a non-algorithmic technique. Which one is it?

| **A)** | Activity diagram. **B)** Structured English. **C) Decision table.** |
| --- | --- |

6.One of the following is not a control structure in Structured English. Which one?

|  | **A)** | **GoTo. B)** Iteration. **C)** Selection. |
| --- | --- | --- |

7. When an internal transition occurs within a state which of the following is true?

| **A)** | The entry and exit actions, if present, are triggered. |
| --- | --- |
| **B)** | **The entry and exit actions are not triggered.** |
| **C)** | The entry and exit actions if present and the action tied to the internal transition are all triggered. |

8. A state chart may have states that include sub states. Which of following is true?

| **A)** | **An object may occupy more multiple concurrent substrates simultaneously.** |
| --- | --- |
| B) | An object may occupy only two concurrent sub states simultaneously. |
| C) | An object may only occupy one substrate at a time. |

9. When an object exits a composite state which of the following is true.

| **A)** | Each of the submachines in the composite state must enter their final state |
| --- | --- |
| **B)** | At least one of the submachines in the composite state must enter its final state. |
| **C)** | **Whatever combination of substrates the composite is in, all those substates are exited.** |

10. The behavioral approach to constructing state charts involves which of the following?

| **A)** | All interaction sequence diagrams should be analyzed first. |
| --- | --- |
| **B)** | **All interaction sequence diagrams involving classes that have heavy messaging should be analyzed.** |
| **C)** | One interaction sequence diagram for each class must be analyzed. |

11. The lifecycle approach to constructing state charts is so called for which of the following reasons.

| **A)** | The state charts are constructed throughout the development lifecycle. |
| --- | --- |
| **B)** | Collaboration diagrams rather than sequence diagrams are used to analyses behavior. |
| **C)** | **It attempts to identify the lifecycle of a class from use cases and other requirements documents.** |

12. Which of the following is an example of design?

| **A)** | There will be a class called Client in the Agate system. |
| --- | --- |
| **B)** | The Client class has an attribute called companyName. |
| **C)** | **The maximum length of the companyName attribute when printed will be 40 characters.** |

13. Which statement is true?

| **A)** | Iterative processes such as the Unified Process give phases different names from activities to confuse students. |
| --- | --- |
| **B)** | Iterative processes such as the Unified Process give phases different names from activities because they share the same namespace and must be unique. |
| **C)** | **Iterative processes such as the Unified Process give phases different names from activities to allow the same activities to take place in different phases.** |

14. Which of the following is not a reason for separating the analysis stage from the design stage?

| **A)** | Analysts and designers may be people with different skills and knowledge. |
| --- | --- |
| **B)** | **It is not possible to begin design until all the analysis has been completed.** |
| **C)** | Clients will want clear decision points at which they can agree that the project should progress to the next stage and incur further costs. |

15. Which of the following is claimed as an advantage of iterative development processes?

| **A)** | **Risk mitigation—by identifying technical problems early on.** |
| --- | --- |
| **B)** | Logical design—by producing a design that is not tied to the physical implementation. |
| **C)** | Diagram separation—by making it possible to use different kinds of diagrams in analysis from those used in design. |

16. Which of the following is a description of logical design?

| **A)** | **Design of aspects of the system without having to consider how they will physically be implemented.** |
| --- | --- |
| **B)** | Design of the logic used in operations, based on decision trees, decision tables or Object Constraint Language. |
| **C)** | Design of the logic gates used in the implementation of the processor chips used in the system. |

17. Which statement is an example of logical design?

| **A)** | **Communication between the Agate system and the company accounts system will be by passing messages.** |
| --- | --- |
| **B)** | There will be a message sent to the accounts system called NewInvoice, which will be formatted in XML, and each invoice will have a six-digit invoice number allocated by the accounts system. |
| **C)** | Communication between the Agate system and the company accounts system will use the OpenJMS Java message server with persistent storage of messages provided by the MySQL database. |

18. Which combination of cohesion and coupling is desirable in a design?

| **A)** | **High cohesion and low coupling. B)** High cohesion and high coupling. |
| --- | --- |
| **C)** | Low cohesion and high coupling. |

19. What is system design?

| **A)** | **Designing the architecture of the system and setting standards, for example for user interface design.** |
| --- | --- |
| **B)** | Designing the inputs and outputs of the system, processes and data storage. |
| **C)** | Designing classes that will implement the system in an object-oriented language. |

20. Which of the following is not part of detailed design?

| **A)** | Screen and window layouts in the form of user interface classes. |
| --- | --- |
| **B)** | **Allocation of sub-systems to processors. C)** Allocation of responsibilities to classes. |