**OOAD and UML Test** Time: 50 mins

1. Which of the following statement about SRS is true?

i) SRS is a formal document that acts as a written agreement between the development team and the customer.

ii) SRS acts as an input to the coding phase and includes functional, performance, software, hardware, and network requirements of the project.

1. A is true , B is false
2. A is false, B is true
3. Both A and B are false
4. Both A and B is true.

2. In which of the following S/w development approaches , are the s/w requirements are broken down into various functional units.These functional units contain a group of similar tasks.

1. Waterfall Approach
2. Prototype Approach
3. Spiral Approach
4. Incremental Approach

3. Which of the following object oriented feature, focuses on essential, inherent aspects of an entity ignoring its implementation details?

1. Inheritance
2. Abstraction
3. Encapsulation
4. Polymorphism

4. Which of the following UML diagrams represent an interaction between objects in the form of messages?

1. Object Diagram
2. Communication Diagram
3. Sequence Diagram
4. State machine Diagram

5. Which of the following diagram is not a type of interaction overview diagram?

1. Sequence Diagram
2. Communication Diagram
3. Composite Structure Diagram
4. Interaction Overview Diagram

6. Which of the following set of diagrams involves depicting the behavior of static constituents?

1. Activity Diagram, State machine Diagram, Communication Diagram, Sequence Diagram, Interaction Overview Diagram and Timing Diagram.
2. Activity Diagram, State machine Diagram, Communication Diagram, Composite Structure Diagram, Interaction Overview Diagram and Timing Diagram.
3. Activity Diagram, State machine Diagram, Communication Diagram, Package Diagram, Interaction Overview Diagram and Timing Diagram.
4. Activity Diagram, State machine Diagram, Communication Diagram, Component Diagram, Interaction Overview Diagram and Timing Diagram.

7. Which of the following phase of life cycle of RUP includes developing the software product iteratively and incrementally? At the end of each iteration the product is released for customer evaluation?

1. Inception
2. Elaboration
3. Construction
4. Transition

8. Which of the following symbols represents Collaboration in a typical UML Business Modeling Diagram?

b.

c.

d.

9. Which of the following statements are true?

i. Business modeling enables you to understand the existing process and gather the requirements for the new s/w system.

ii. System modeling gives a proposed solution to fulfill the gathered requirements.

1. Both A and B is true.
2. A is true , B is false
3. A is false, B is True.
4. Both A and B are false.

10. Which of the following type of storyboards consist of animations or an animation tool and a recorded computer script or simulation?

1. Passive Storyboard
2. Active Storyboard
3. Interactive Storyboard
4. Informative Storyboard

11. Which of the following refers to the objectives that the deliverable product should fulfill?

1. Project Functions
2. Project Reports
3. System Boundary
4. Available Time

12. Which of the following types of use cases describe the software system in three terms : information, input and output?

1. Façade use case
2. Filled use case
3. Focused use case

13. Which of the following visibilities provided by UML indicates that the attribute/operation in the base class is protected?

1. +
2. –
3. #
4. ~

14. Which of the following is the correct syntax for writing attributes in the class diagram?

1. Visibility name: multiplicity type = default {property-string}
2. Visibility name: type multiplicity : default {property-string}
3. Visibility name: type multiplicity {property-string} = default
4. Visibility name: type multiplicity = default {property-string}

15. In a typical Class diagram the Customer class consists of the Address Class and also Controls the lifetime of the Address Class. What kind of relationship exists between the Customer class and the Address Class ?

1. Aggregation
2. Composition
3. Dependency
4. Generalization

16. Which of the following relationship is exhibited by the given notation in case of a UML Class or Object diagram ?

1. Aggregation
2. Composition
3. Dependency
4. Realization

17. Which of the following association relationship between two objects of the same class ?

1. Recursive aggregation
2. Derived Association
3. Qualified association
4. Derived attribute

18. Which of the following statements in context with interfaces are true ?

i. We use the Lollipop notation when a class that realizes the interface overloads the same methods as declared in the interface.

ii. We use the dashed arrow notation when either a few operations are overloaded or additional operations are declared in the class that realizes the interface.

1. Both A and B are true
2. A is true, b is false
3. A is false, B is true
4. Both A and B are false

19. Which of the following sentences regarding abstract classes and interfaces are true?

i. Interfaces support multiple inheritances whereas abstract classes do not.

ii. An abstract class contains attributes that are public, private or protected whereas interface consist only methods.

iii. An interface may provide the definition of some of its methods whereas abstract classes do not provide any definitions.

iv. An abstract class is used in the same package whereas an interface is realized across multiple packages.

1. I and ii is true.
2. I, ii and iii are true.
3. I, ii and iv are true.
4. All are true.

20. Which of the following type of message is sent from one object to another object in an interaction diagram using the following notation?

1. Call
2. Return
3. Send
4. Create

21. What does the following symbol represent in case of a sequence diagram?

1. Object
2. Object lifeline
3. Focus of Control
4. Message

22. Which of the following components of a state transition indicates a boolean expression which if evaluates to true allows transition to occur?

1. Event trigger
2. Guard Condition
3. Action
4. Target State

23. Which of the following statements about substates are true?

1. A substate is a state contained within another state.
2. A state that contains multiple substates is called Concurrent substate.
3. Both A and B is true.
4. A is true B is false
5. A id false B is true
6. Both A and B are false

24. Which of the following components of an Activity diagram represents the input and output parameters of the activity states ?

1. Partitions
2. Signals
3. Pins and Transformations
4. Flows

25. In the given Activity diagram what does the dotted line represents?

Choose Product

List of Product IDs

Deliver products

Calculate Net sales price of Product

Calculate Discount on Product

Charge Bill

1. Expansion region
2. Flow Final
3. Fork and Join