CIS 201 Chapter 10 Review Test

True/False

Indicate whether the statement is true or false.

1. (1 point) “Just in time” systems design is a popular technique used in adaptive approaches to projects.

2. (1 point) In object-oriented design, the design models are extensions of the analysis models.

3. (1 point) One tenet of Agile philosophy is that while analysis models may be useful, it generally is not necessary to develop design models.

4. (1 point) Software systems can generally be divided into three types of systems: single-user systems, enterprise-level systems, and Web-based systems.

5. (1 point) The primary difference between Web based systems and non-Internet systems is in how the view layer interacts with the domain and data access layers.

6. (1 point) The objective of object-oriented detailed design is to identify and specify all the objects that must work together to carry out each use case.

7. (1 point) The most important model in object-oriented detailed design is a class diagram.

8. (1 point) The interface for a component in a component diagram is denoted by a ball or a port.

9. (1 point) The primary difference between a design class symbol and a problem domain class symbol is the addition of method signatures.

10. (1 point) Detailed Object-oriented design (OOD) is done on a use case-by-use case basis.

Multiple Choice

11. (1 point) Which of the following is NOT part of a multilayer object-oriented design (OOD)?
   a. Database access
   b. Problem domain object
   c. User input form
   d. Functional module

12. (1 point) Which analysis model serves as an input model to a design class diagram?
   a. Use case diagram
   b. Activity diagram
   c. Domain model class diagram
   d. System sequence diagram (SSD)

13. (1 point) Ports and sockets are used to show the interface in what kind of UML diagram?
   a. Deployment diagram
   b. Network diagram
   c. Package diagram
   d. Component diagram

14. (1 point) Which of the following diagrams is used for architectural design?
a. Interaction diagrams
b. Package diagrams
c. State machine diagrams
d. Component diagrams

15. (1 point) A set of public methods of a system that can be used by the outside world is referred to as ______.
   a. MVC
   b. API
   c. CRC
   d. DCD

16. (1 point) Which diagram is directly used to write programming code for object-oriented systems?
   a. Sequence diagram
   b. Design class diagram
   c. Package diagram
   d. State-machine diagram

17. (1 point) Which two models are the primary models in object-oriented detailed design?
   a. Design class diagram and component diagram
   b. Package diagram and CRC cards
   c. Sequence diagram and state machine diagram
   d. Sequence diagram and design class diagram

18. (1 point) In Unified Modeling Language (UML) notation, a stereotype is indicated by ____.
   a. parentheses
   b. brackets
   c. guillemets
   d. underline

19. (1 point) An input window class is an example of a(n) ____ design class type.
   a. boundary
   b. control
   c. entity
   d. persistent

20. (1 point) A(n) ____ class acts as a switchboard between the view layer and the domain layer.
   a. boundary
   b. control
   c. entity
   d. persistent

21. (1 point) Which of the following is included in the top compartment of a design class?
   a. Attributes
   b. Parameter list
   c. Type-expression
   d. Stereotype name

22. (1 point) In design class notation, the ____ of an attribute is enclosed in curly braces {}.
   a. visibility
   b. type-expression
   c. initial-value
   d. property

23. (1 point) Which of the following is correct UML notation for an attribute in a design class?
a. visibility name:type-expression = initial-value{property}
b. visibility class-name:type-expression {property}
c. visibility name:initial-value{property}
d. visibility name:type-expression initial-value (property)

24. (1 point) Given two classes, customer and order, which class would probably have navigational visibility to which class?
   a. Cannot determine based on the information provided
   b. Bidirectional -- each has visibility to the other
   c. Order to Customer
   d. Customer to Order

25. (1 point) If you are doing detailed design for the use case *Create New Order*, which class should receive the first input?
   a. OrderTransaction
   b. Order
   c. OrderHandler
   d. Customer

26. (1 point) CRC stands for what?
   a. Collaboration responsibility card
   b. Class responsibility collaboration
   c. class relationship collaboration
   d. collaboration relationship class

27. (1 point) Which of the following is usually NOT included in a first-cut design class diagram?
   a. Initial value information for attributes
   b. Attribute types
   c. Method signatures
   d. Navigation visibility arrows

28. (1 point) Which of the following is a general guideline for designing navigation visibility?
   a. A superior/subordinate relationship is usually navigated from the superior to the subordinate class
   b. A superior/subordinate relationship is usually navigated from the subordinate to the superior class
   c. Relationships in which objects in one class cannot exist without objects of another class are usually navigated from the more dependent class to the more independent class
   d. Navigation arrows should not be modified during the design process

29. (1 point) After completing a use-case design using CRC cards, the next step is to _______.
   a. add required utility classes
   b. select another use case
   c. program the use case
   d. update the design class diagram

30. (1 point) High coupling ____ in a system.
   a. is easier to maintain
   b. reduces ripple effects in a system when changes occur
   c. adds complexity
   d. decreases visibility between classes