CIS 201 Chapter 4 Review Test

True/False
Indicate whether the statement is true or false.

1. (1 point) Two techniques to identify things in the problem domain are the noun technique and the verb technique.

2. (1 point) When identifying things in the problem domain, an analyst should focus primarily on tangible things about which information is required.

3. (1 point) When using the brainstorming technique it is often helpful to think about each use case and talking to users.

4. (1 point) The noun technique can be thought of as a variation of the brainstorming technique.

5. (1 point) The cardinality of a class is a measure of the number of objects in the class.

6. (1 point) The ERD crows feet cardinality constraint indicates a mandatory many relationship.

7. (1 point) In UML a zero to many multiplicity constraint is shown with a “O” and crows feet on the line.

8. (1 point) A class of objects is equivalent to a set of objects.

9. (1 point) A superclass only exists as part of a generalization/specialization.

10. (1 point) An abstract class is used to describe a “thing” that is abstract, i.e. not tangible.

11. (1 point) A composite object only exist as part of a whole-part relationship.

12. (1 point) In generalization/specialization the objects in a subclass are always also contained in the parent class.

13. (1 point) A semantic net illustrates individual objects within a class diagram.

Multiple Choice
Identify the choice that best completes the statement or answers the question.

14. (1 point) An attribute whose value uniquely identifies an object is called a(n) _____.
   a. unique attribute
   b. secure attribute
   c. locking attribute
   d. key attribute

15. (1 point) The number of associations that occur among specific things in an entity relationship diagram is called _____.
   a. a relationship
   b. an attribution
   c. a binary relationship
   d. cardinality

16. (1 point) ____ is used to describe the relationship between two things of the same type, such as one person being married to another person.
   a. Binary association
   b. Unary association
   c. Cardinality
   d. N-ary association
17. **(1 point)** An attribute that contains a collection of related attributes is called a(n) _______.
   a. class attribute  
   b. key attribute  
   c. compound attribute  
   d. association attribute

18. **(1 point)** A measure of the number of links between one object and another object in a relationship is called the _______.
   a. linkups  
   b. aggregations  
   c. associations  
   d. cardinality

19. **(1 point)** In the traditional approach to system development, the system stores information about ____.
   a. objects  
   b. data stores  
   c. attributes  
   d. data entities

20. **(1 point)** The crows feet notation on an ERD is a type of _______ constraint.
   a. cardinality  
   b. multiplicity  
   c. many-to-many  
   d. relationship

21. **(1 point)** Which of the following relationships would NOT be an appropriate way to describe a relationship between an employee and his/her manager?
   a. Unary relationship  
   b. Binary relationship  
   c. Generalization/Specialization relationship  
   d. Association relationship

22. **(1 point)** An association class is frequently required for what kind of relationship?
   a. zero to one  
   b. one to many  
   c. many to many  
   d. zero to many

23. **(1 point)** In a generalization/specialization relationship, it would not make sense for a class at the bottom of the hierarchy to be a(n) _______ class.
   a. composite  
   b. association  
   c. concrete  
   d. abstract

24. **(1 point)** Inheritance describes a condition between classes where _______.
   a. some classes are always abstract  
   b. subclasses inherit the names from superclasses  
   c. classes are part of other classes  
   d. classes share some attributes