ITMD 413/513 (Quick Review chap. 11- Inheritance) - **solutions**

1. \_\_\_\_\_ allows a new class to inherit the members of the class it extends.

|  |  |
| --- | --- |
| a. | Encapsulation |
| b. | Domain |
| c. | Methods |
| d. | Inheritance |

ANS: D

2. What concept involves a superclass and a subclass?

|  |  |
| --- | --- |
| a. | Polymorphism |
| b. | Inheritance |
| c. | Encapsulation |
| d. | Methods |

ANS: B

3. What gives a program the ability to call the correct method depending on the type of object that is used to call it?

|  |  |  |
| --- | --- | --- |
| a. | Polymorphism |  |
| b. | Inheritance |  |
| c. | Encapsulation |  |
| d. | Methods |  |

ANS: A

4. What does a subclass inherit from a superclass?

|  |  |
| --- | --- |
| a. | Instances and attributes |
| b. | Data and methods |
| c. | Methods and instances |
| d. | Attributes and methods |

ANS: D

5. In the following line of code, what is the name of the subclass?

class Rose(Flower):

|  |  |
| --- | --- |
| a. | Rose |
| b. | Flower |
| c. | Either |
| d. | Incorrect code |

ANS: A

6. In the following line of code, what is the name of the base class?

class Male(Human):

|  |  |
| --- | --- |
| a. | Male |
| b. | Human |
| c. | Either |
| d. | Incorrect code |

ANS: B

7. In a UML diagram, what does the open arrowhead point to?

|  |  |  |
| --- | --- | --- |
| a. | Superclass |  |
| b. | Subclass |  |
| c. | Object |  |
| d. | Method |  |

ANS: A

8. Examine the following piece of code:

class Potato (Vegetable):

In a UML diagram, what would the open arrowhead point to?

|  |  |  |
| --- | --- | --- |
| a. | Potato |  |
| b. | Vegetable |  |
| c. | class |  |
| d. | Potato(Vegetable) |  |

ANS: B

9. When there are several classes that have many common data attributes, it is better to write a(n) \_\_\_\_\_ to hold all the general data.

|  |  |
| --- | --- |
| a. | superclass |
| b. | subclass |
| c. | object |
| d. | method |

ANS: A

10. In an inheritance relationship, what is a specialized class called?

|  |  |
| --- | --- |
| a. | Superclass |
| b. | Subclass |
| c. | Object |
| d. | Method |

ANS: B

11. Of the two classes Cola and Soda, which would most likely be the subclass?

|  |  |
| --- | --- |
| a. | Cola |
| b. | Soda |
| c. | Both |
| d. | Either |

ANS: A

12. Which method can you use to determine whether an object is an instance of a class?

|  |  |
| --- | --- |
| a. | isinstance |
| b. | isclass |
| c. | isobject |
| d. | isinheritance |

ANS: A

13. Which of the following is the correct syntax for defining a class dining which inherits from class furniture?

|  |  |
| --- | --- |
| a. | class furniture(dining) |
| b. | class dining(furniture) |
| c. | class furniture(dining): |
| d. | class dining(furniture): |

ANS: D

14. Base classes are also called \_\_\_\_\_.

|  |  |  |
| --- | --- | --- |
| a. | superclasses |  |
| b. | derived |  |
| c. | subclasses |  |
| d. | classes |  |

ANS: A

15. What is the relationship called in which one object is a specialized version of another object?

|  |  |  |
| --- | --- | --- |
| a. | Parent-child |  |
| b. | Node |  |
| c. | Is a |  |
| d. | Class |  |

ANS: C