



UNIVERSITY OF MINES AND TECHNOLOGY, TARKWA

FIRST SEMESTER EXAMINATIONS, NOV/DEC 2018

COURSE NO: EL/CE/MA 261
COURSE NAME: OBJECT ORIENTED PROGRAMMING WITH C++
CLASS: EL/CE/MA II **TIME:** 3 HOURS

Name: _____ Index Number: _____

Section A.

Answer all questions. Each mark carries 0.5 marks.

1. In a class definition, data or functions designated private are accessible

- a. to any function in the program.
- b. only if you know the password.
- c. to member functions of that class.
- d. only to public members of the class.

2. The dot operator (or class member access operator) connects the following two entities (reading from left to right):

- a. A class member and a class object
- b. A class object and a class
- c. A class and a member of that class
- d. A class object and a member of that class

3. Classes are useful because they

- a. are removed from memory when not in use.
- b. permit data to be hidden from other classes.
- c. bring together all aspects of an entity in one place.
- d. can closely model objects in the real world.

4. Operator overloading is

- a. making C++ operators work with objects.
- b. giving C++ operators more than they can handle.
- c. giving new meanings to existing C++ operators.
- d. making new C++ operators

5. When you overload an arithmetic assignment operator, the result

- a. goes in the object to the right of the operator.
- b. goes in the object to the left of the operator.
- c. goes in the object of which the operator is a member.
- d. must be returned.

6. Inheritance is a way to

- a. make general classes into more specific classes.
- b. pass arguments to objects of classes.
- c. add features to existing classes without rewriting them.
- d. improve data hiding and encapsulation.

7. Advantages of inheritance include

- a. providing class growth through natural selection.
- b. facilitating class libraries.
- c. avoiding the rewriting of code.
- d. providing a useful conceptual framework.

8. The scope-resolution operator usually

- a. limits the visibility of variables to a certain function.
- b. specifies a particular class.
- c. tells what base class a class is derived from.
- d. resolves ambiguities.

9. A constructor is executed automatically when an object is _____.

10. A constructor's name is the same as _____.
11. A "child" class is said to be _____ from a base class.
12. True or false: Adding a derived class to a base class requires fundamental changes to the base class.
13. To be accessed from a member function of the derived class, data or functions in the base class must be public or _____.
14. If a base class contains a member function basefunc(), and a derived class does not contain a function with this name, can an object of the derived class access basefunc()?
15. True or false: If no constructors are specified for a derived class, objects of the derived class will use the constructors in the base class.
16. True or false: It is sometimes useful to specify a class from which no objects will ever be created.
17. True or false: It is illegal to make objects of one class members of another class.
18. In the UML, inheritance is called _____.
19. True or false: the arrow representing generalization points to the more specific class.
20. True or false: The >= operator can be overloaded.

Section B.

Answer all questions. Each question carries 2 marks.

1. Briefly Explain each of the following terms as they apply to object oriented programming.
 - i. Class
 - ii. object
 - iii. constructor
 - iv. Destructor
 - v. Data Hiding
 - vi. Inheritance
 - vii. Binding
 - viii. Friend function
 - ix. Operator overloading
 - x. Abstract class

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