

## MIDTERM EXAMINATION

Spring 2010

### CS304- Object Oriented Programming (Session - 6)

Time: 60 min

Marks: 38

Question No: 1 ( Marks: 1 ) - Please choose one

Suppose there is an object of type Person, which of the following can be considered as one of its attributes

- ▶ Name
- ▶ Age
- ▶ Work()
- ▶ Both Name and Age

Question No: 2 ( Marks: 1 ) - Please choose one

What a derived class can add?

- ▶ New data members
- ▶ New member functions and New friend functions
- ▶ New constructors and destructor
- ▶ All of given

Question No: 3 ( Marks: 1 ) - Please choose one

\_\_\_\_\_ is/are used to access information hidden within an object?

- ▶ Interface
- ▶ Private data members
- ▶ Private member functions
- ▶ Both public and private members

Question No: 4 ( Marks: 1 ) - Please choose one

this pointers are not accessible for static member functions.

- ▶ True
- ▶ False

Question No: 5 ( Marks: 1 ) - Please choose one

A static member function cannot be declared.

- ▶ Static
- ▶ Implicit

- ▶ Explicit
- ▶ Virtual

Question No: 6 ( Marks: 1 ) - Please choose one

C++ compiler does not allow to dynamically allocate memory for objects

- ▶ False
- ▶ True

Question No: 7 ( Marks: 1 ) - Please choose one

Given the following class

```
class Base{  
int Age=33;  
}
```

How you can improve above class with respect to accessing the field Age?

- ▶ Define the variable Age as private
- ▶ Define the variable Age as protected
- ▶ Define the variable Age as private and create a get method that returns it and a set method that updates it
- ▶ Define the variable Age as protected and create a set method that returns it and a get method that updates it

Question No: 8 ( Marks: 1 ) - Please choose one

Friend class and friend function can be used as an alternate to each other

- ▶ True
- ▶ False

Question No: 9 ( Marks: 1 ) - Please choose one

Which of the following operators always takes no argument if overloaded?

- ▶ /
- ▶ -
- ▶ +
- ▶ ++

Question No: 10 ( Marks: 1 ) - Please choose one

Suppose that the Test class does not have an overloaded assignment operator. What happens when an assignment a=b; is given for two Test objects a and b?

- ▶ The automatic assignment operator is used
- ▶ The copy constructor is used
- ▶ Compiler error
- ▶ Run-time error

Question No: 11 ( Marks: 1 ) - Please choose one  
Assume a class C with objects obj1, obj2, and obj3. For the statement  $obj3 = obj1 - obj2$  to work correctly, if the overloaded - operator must

- ▶ take two arguments.
- ▶ return a value.
- ▶ create a named temporary object.
- ▶ take four arguments

Question No: 12 ( Marks: 1 ) - Please choose one  
Which operator can not be overloaded?

- ▶ The relation operator (  $\geq$  )
- ▶ Assignment operator ( = )
- ▶ Script operator ( [ ] )
- ▶ Conditional operator ( ? : )

Question No: 13 ( Marks: 1 ) - Please choose one  
We achieve independence of internal implementation from its external interface through--  
-----

- ▶ Encapsulation
- ▶ Information Hiding
- ▶ Abstraction
- ▶ both encapsulation and information hiding

Question No: 14 ( Marks: 1 ) - Please choose one  
Which one of the following is not an object association?

- ▶ Simple Association
- ▶ Inheritance
- ▶ Aggregation
- ▶ Composition

Question No: 15 ( Marks: 1 ) - Please choose one  
We capture the object attributes and behavior in Object Oriented programming using-----  
-----

- ▶ Class
- ▶ Function
- ▶ Data Members
- ▶ Instances

Question No: 16 ( Marks: 1 ) - Please choose one  
The return type of a constructor is of -----

- ▶ Integer
- ▶ Chracter
- ▶ Double
- ▶ No type

Question No: 17 ( Marks: 2 )

Can we create an array of objects for a class having default constructor?. Justify your answer.

Question No: 18 ( Marks: 2 )

Friend functions increase 'Data vulnerability', what is your opinion ?

Question No: 19 ( Marks: 2 )

Explain two benefits of setter functions.

Question No: 20 ( Marks: 3 )

Consider the class given below what will be the values in variables x,y and z after creating object of this class,

```
class ABC{
int x;
int y;
int z;
public:
ABC();
};
ABC::ABC():x(10),z(x),y(x)
{
...
}
```

Question No: 21 ( Marks: 3 )

Explain what type of copy the default assignment operator "=" does when applied to objects. (shallow copy or deep copy)

Question No: 22 ( Marks: 5 )

What is composition? Explain it with the help of an example.

Question No: 23 ( Marks: 5 )

How we can overload Stream Extraction and Insertion Operators in c++?Give example code for Complex Number Class.