

CS304- Object Oriented Programming

LATEST SOLVED MCQS FROM FINALTERM PAPERS **JAN 28,2011**

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PSMD01

FINALTERM EXAMINATION 14 Feb, 2011 CS304- Object Oriented Programming (Session - 3)

Question No: 1 (Marks: 1) - Please choose one Which of the following causes run time binding?

- ▶ Declaring object of abstract class
- ► Declaring pointer of abstract class
- ► Declaring overridden methods as non-virtual (Page 226)
- ► None of the given

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

Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

- ► Templates (Page 256)
- **▶** Overloading
- ► Data hiding
- ► Encapsulation

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

A copy constructor is invoked when

- ➤ a function do not returns by value.
- ▶ an argument is passed by value. (Page 78)
- ➤ a function returns by reference.
- ▶ an argument is passed by reference.

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

Like template functions, a class template may not handle all the types successfully.

- **►** True (Page 258)
- ► False

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Question No: 6 (Marks: 1) - Please choose one A class template may inherit from another class template.	
 ▶ True (Page 288) ▶ False 	
Question No: 7 (Marks: 1) - Please choose one By default the vector data items are initialized to > 0	
Question No: 8 (Marks: 1) - Please choose one n Private only member functions and friend classes or functions of a derived class can convert pointer or reference of derived object to that of parent object	
 specialization inheritance (Page 216) abstraction composition 	
Question No: 9 (Marks: 1) - Please choose one Which of the following is/are advantage[s] of generic programming? ► Reusability ► Writability ► Maintainability ► All of given (Page 256)	
Question No: 10 (Marks: 1) - Please choose one Template functions use than ordinary functions.	
 ▶ Greater Memory ▶ Lesser Memory ▶ Equal Memory ▶ None of the given options 	
Question No: 11 (Marks: 1) - Please choose one Non Template Friend functions of a class are friends ofinstance/s of that class.	
 ► All Click here for detail ► One specific ► All instances of one date type 	

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► None of the given options

Question No: 12 (Marks: 1) - Please choose one

A copy constructor is invoked when

- ➤ a function do not returns by value.
- ► an argument is passed by value. (Page 78)
- ▶ a function returns by reference.
- ▶ an argument is passed by reference.

Question No: 13 (Marks: 1) - Please choose one

A pointer to a base class can point to objects of a derived class.

- ► True Click here for detail
- ► False

Question No: 14 (Marks: 1) - Please choose one

A template argument is preceded by the keyword _____.

- **▶** vector
- ▶ class

Click here for Detail

- **▶** template
- ► type*

Question No: 15 (Marks: 1) - Please choose one

Which one of the following terms must relate to polymorphism?

- ► Static allocation
- ► Static typing
- **▶** Dynamic binding (Page 239)
- ▶ Dynamic allocation

Question No: 16 (Marks: 1) - Please choose one

Multiple inheritance can be of type

- ► Public
- ➤ Private
- ► Protected
- ► All of the given <u>Click here for detail</u>

Question No: 17 (Marks: 1) - Please choose one

Assume a class Derv that is privately derived from class Base. An object of class Derv located in main() can access

- **▶** public members of Derv. (Object-Oriented Programming in C++)
- ▶ protected members of Derv.
- ▶ private members of Derv.
- ▶ protected members of Base.

Question No: 18 (Marks: 1) - Please choose one A copy constructor is invoked when ➤ a function do not returns by value. ► an argument is passed by value. (**Page 78**) (**rep**) ➤ a function returns by reference. ➤ an argument is passed by reference. Question No: 19 (Marks: 1) - Please choose one A function call is resolved at run-time in ▶ non-virtual member function. **▶** virtual member function. (Page 239) ▶ Both non-virtual member and virtual member function. ► None of given Question No: 20 (Marks: 1) - Please choose one Two important STL associative containers are _____ and _ (Object-Oriented Programming in C++) > set,map ► sequence, mapping ► setmet, multipule ➤ sit,mat Question No: 21 (Marks: 1) - Please choose one An abstract class is useful when, ▶ We do not derive any class from it. ▶ There are multiple paths from one derived class to another. ► We do not want to instantiate its object. (Object-Oriented Programming in C++) ➤ You want to defer the declaration of the class. Question No: 22 (Marks: 1) - Please choose one Which of the following is/are advantage[s] of generic programming? ► Reusability ► Writability ► Maintainability ► All of given (Page 256) rep Question No: 23 (Marks: 1) - Please choose one

Question No: 23 (Marks: 1) - Please choose one By default the vector data items are initialized to

► 0 Click here for Detail rep

▶ 0.0

1

▶ null

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Question No: 24 (Marks: 1) - Please choose one

Suppose you create an uninitialized vector as follows:

vector<int> evec;

After adding the statment,

evec.push_back(21);

what will happen?

- ▶ The following statement will add an element to the start (the back) of evec and will initialize it with the value 21.
- ► The following statement will add an element to the center of evec and will reinitialize it with the value 21.
- ▶ The following statement will delete an element to the end (the back) of evec and will reinitialize it with the value 21.
- ► The following statement will add an element to the end (the back) of evec and initialize it with the value 21. Click here for detail

Question No: 25 (Marks: 1) - Please choose one

Default constructor is such constructor which either has no -----or if it has some parameters these have ----- values

- ► Parameter, temporary
- ► Null. Parameter
- ► Parameter, default (Page 75)
- ▶ non of the given

Question No: 26 (Marks: 1) - Please choose one

Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

- ► Templates (Page 256) rep
- ▶ Overloading
- ▶ Data hiding
- ► Encapsulation

Question No: 27 (Marks: 1)

Describe the way to declare a template class as a friend of any class.

Question No: 28 (Marks: 1)

Classes like TwoDimensionalShape and ThreeDimensionalShape would normally be concrete, while classes like Sphere and Cube would normally be abstract.

- ► True Click here for detail
- ► False

Question No: 29 (Marks: 1)

In order to define a class template, the first line of definition must be:

- ► template <typename T> (Page 257)
- ▶ typename <template T>
- ► Template Class <ClassName>
- ► Class <Template T>

Question No: 30 (Marks: 1)

In case of multiple inheritance a derived class inherits,

- ▶ Only the public member functions of its base classes
- Only the public data members of its base classes
- ▶ Both public data members and member functions of all its base classes

Click here for detail

▶ Data members and member functions of any two base classes

Question No: 31 (Marks: 1)

In Private ----- only member functions and friend classes or functions of a derived class can convert pointer or reference of derived object to that of parent object

- ▶ specialization
- ▶ inheritance (Page 216) rep
- ▶ abstraction
- ▶ composition

Question No: 32 (Marks: 1)

Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

- ► Templates (Page 256) rep
- ▶ Overloading
- ► Data hiding
- **▶** Encapsulation

FINALTERM EXAMINATION

Spring 2010 CS304- Object Oriented Programming

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

A template argument is preceded by the keyword _____

- **▶** vector
- ► class (Object-Oriented Programming in C++)
- **▶** template
- ► type*

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

Which of the following causes run time binding?

- ▶ Declaring object of abstract class
- ► Declaring pointer of abstract class
- ▶ Declaring overridden methods as non-virtual (Page 226)
- ▶ None of the given

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

A function template can not be overloaded by another function template.

- ► True (Object-Oriented Programming in C++)
- ► False

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

Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

- ► Templates (Page 256) rep
- Overloading
- ► Data hiding
- **▶** Encapsulation

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

Identify the correct way of declaring an object of user defined template class A for char type members?

- ► A< char > obj; (Object-Oriented Programming in C++)
- <char>A obj;
- ► A obj<char>;
- ► Obj <char> A;

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Question No: 6 (Marks: 1) - Please choose one The user must define the operation of the copy constructor. **►** True Click here for detail ► False Question No: 7 (Marks: 1) - Please choose one Template functions use _____ than ordinary functions. ► Greater Memory **►** Lesser Memory ► Equal Memory ► None of the given options **Question No: 8** (Marks: 1) - Please choose one The find() algorithm ▶ finds matching sequences of elements in two containers. ▶ finds a container that matches a specified container. ▶ takes iterators as its first two arguments. (Object-Oriented Programming in C++) ▶ takes container elements as its first two arguments. **Question No: 9** (Marks: 1) - Please choose one Compiler performs ______ type checking to diagnose type errors, ► Static (Page 261) **▶** Dynamic ► Bound ► Unbound (Marks: 1) - Please choose one **Question No: 10** Which of the following is/are advantage[s] of generic programming? ► Reusability ► Writability ► Maintainability ► All of given (Page 256) rep **Question No: 11** (Marks: 1) - Please choose one Vectors contain contiguous elements stored as a[an] ____. ► variable

array (Page 306)

▶ function

▶ datatype

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Question No: 12 (Marks: 1) - Please choose one

Suppose you create an uninitialized vector as follows:

vector<int> evec; After adding the statment, evec.push_back(21); what will happen?

- ▶ The following statement will add an element to the start (the back) of evec and will initialize it with the value 21.
- ► The following statement will add an element to the center of evec and will reinitialize it with the value 21.
- ▶ The following statement will delete an element to the end (the back) of evec and will reinitialize it with the value 21.
- ► The following statement will add an element to the end (the back) of evec and initialize it with the value 21. Click here for detail

Question No: 13 (Marks: 1) - Please choose one

In a de-queue, (chose the best option)

- ▶ data can be quickly inserted or deleted at any arbitrary location.
- ▶ data can be inserted or deleted at any arbitrary location, but the process is relatively slow.

(Object-Oriented Programming in C++)

- ▶ data can not be quickly inserted or deleted at either end.
- ▶ data can be inserted or deleted at either end, but the process is relatively slow.

Question No: 14 (Marks: 1) - Please choose one

Algorithms can only be implemented using STL containers.

- ► True
- ► False (Object-Oriented Programming in C++)

Question No: 15 (Marks: 1) - Please choose one

What is a class?

- ► A class is a section of computer memory containing objects.
- ► A class is a section of the hard disk reserved for object oriented programs
- ► A class is the part of an object that contains the variables.
- ► A class is a description of a kind of object. Click here for detail

Question No: 16 (Marks: 1) - Please choose one Inheritance is a way to ▶ organize data. ▶ pass arguments to objects of classes. ▶ add features to existing classes without rewriting them. (Page 27) ▶ improve data-hiding and encapsulation. Question No: 17 (Marks: 1) - Please choose one We can use "this" pointer in the constructor in the body and even in the initialization list of any class if we are careful. **►** True Click here for detail ► False **Question No: 18** (Marks: 1) - Please choose one methods may not be declared abstract. and > private, static Click here for detail ▶ private, public ► static, public ▶ none of given **Question No: 19** (Marks: 1) - Please choose one Default constructor is such constructor which either has no ------ or if it has some parameters these have ------ values ► Parameter, temporary ► Null, Parameter ► Parameter, default (Page 75) rep ▶ non of the given **Question No: 20** (Marks: 1) - Please choose one **Public methods** of base class can ----- be accessed in its derived class (Page 179) **directly ▶** inderectly

- **▶** simultaniously
- ▶ non of the given

Question No: 21 (Marks: 1) - Please choose one

The type that is used to declare a reference or pointer is called its ------

- ► default type
- ► static type (Page 185)
- ▶ abstract type
- reference type

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Question No: 22 (Marks: 1) - Please choose one

----- members are somewhere between public and private members. They are used in inheritance

- ▶ protected (Page 187)
- **public**
- ► private
- ▶ global

Question No: 23 (Marks: 1) - Please choose one

Which of these are examples of error handling techniques?

- ► Abnormal Termination
- ► Graceful Termination
- ► Return the illegal
- ► all of the given (Page 329)

Question No: 24 (Marks: 1) - Please choose one

----- follow try block to catch the object thrown

- ► catch block (Page 333)
- ▶ throw block
- ▶ main block
- ▶ non of the given

Question No: 25 (Marks: 1) - Please choose one

Graphical representation of the classes and objects is called object model it shows ------

- ► Class Name only
- ► Class Name and attributes
- ► Relationships of the objects and classes
- ► all of the given Click here for detail

Question No: 26 (Marks: 1) - Please choose one

Destructor can be overloaded

- ► True
- ► False (Page 92)

FINALTERM EXAMINATION

Spring 2010

CS304- Object Oriented Programming (Session - 3)

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

Which one of the following terms must relate to polymorphism?

- ► Static allocation
- ► Static typing
- **▶** Dynamic binding (Page 239)
- ▶ Dynamic allocation

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

Which of the following causes run time binding?

- ▶ Declaring object of abstract class
- ► Declaring pointer of abstract class
- **▶** Declaring overridden methods as non-virtual (Page 226)
- ► None of the given

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

Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

- ► Templates (Page 256) rep
- ► Overloading
- ► Data hiding
- **▶** Encapsulation

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

Which of the following is the best approach to implement generic algorithms with minimum number of coding lines?

- ► Templates (Page 256)
- **▶** Overloading
- **▶** Overriding
- ► Friend function/class

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

Like template functions, a class template may not handle all the types successfully.

- ► True (Page 258) rep
- ► False

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

A class template may inherit from another class template.

- ► True (Page 288) rep
- ► False

```
Question No: 7 (Marks: 1) - Please choose one
Assume a class Derv that is privately derived from class Base. An object of class Derv located in main() can access
    ▶ public members of Derv. (Object-Oriented Programming in C++) rep
    protected members of Derv.
    ▶ private members of Derv.
    ▶ protected members of Base.
Question No: 8 (Marks: 1) - Please choose one
A copy constructor is invoked when
    ▶ a function do not returns by value.
    ► an argument is passed by value. (Page 78) rep
    ▶ a function returns by reference.
    ▶ an argument is passed by reference.
Question No: 9 (Marks: 1) - Please choose one
Each try block can have _____ no. of catch blocks.
    > 3
    ► As many as necessary.
                                   Click here for detail
A single try block can have multiple catch blocks but only one finally block.
Question No: 10 (Marks: 1) - Please choose one
class DocElement
public:
   virtual void Print() { cout << "Generic element"; }</pre>
class Heading: public DocElement
public:
   void Print() { cout << "Heading element"; }</pre>
class Paragraph: public DocElement
public:
   void Print() { cout << "Paragraph element"; }</pre>
void main()
{
   DocElement * p = new Paragraph();
```

p->Print();

When you run this program, it will print out a single line to the console output.

What will be in that line?

Select one correct answer from the following list:

- ► Generic element
- ► Heading element
- ► Paragraph element
- ► Nothing will be printed.

Question No: 11 (Marks: 1) - Please choose one

Suppose we have two derived classes from a single class, can we write a method with same name in both these derived classes? Choose the best option.

- ► No
- ▶ Only if the two classes have the same name (Page 204)
- ► Only if the main program does not declare both kinds
- ► Yes

Question No: 12 (Marks: 1) - Please choose one

When a virtual function is called by referencing a specific object by name and using the dot member selection operator (e.g., squareObject.draw()), the reference is resolved at compile time.

- ► True
- ► False (Object-Oriented Programming in C++)

(the function invocation is resolved at compile time)

Question No: 13 (Marks: 1) - Please choose one

Considering the resolution order in which Considering the resolution order in which compiler search for functions in a program; the first priority is given to; the first priority is given to,

- ▶ general template
- partial specialization
- ► complete specialization
- ► ordinary function (Page 287)

Question No: 14 (Marks: 1) - Please choose one

Vectors contain contiguous elements stored as a[an] ____.

- ▶ variable
- ► array (Page 306) rep
- ▶ function
- ► datatype

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Question No: 15 (Marks: 1) - Please choose one

By default the vector data items are initialized to _____

- ► 0 Click here for detail rep
- ▶ 0.0
- ▶ 1
- ▶ null

Question No: 16 (Marks: 1) - Please choose one

One purpose of an iterator in the STL is to connect algorithms and containers.

- ► True (Object-Oriented Programming in C++)
- ► False

Question No: 17 (Marks: 1) - Please choose one

Algorithms can only be implemented using STL containers.

- ► True
- ► False (Object-Oriented Programming in C++) rep

Question No: 18 (Marks: 1) - Please choose one

In _____, a base class can be replaced by its derived class,

- ► Sub-typing (Page 31)
- Super-typing
- ▶ Multiple-typing
- ► Restricted-typing

Question No: 19 (Marks: 1) - Please choose one

this pointer does not point to current object of any class,

- ► True
- ► False Click here for detail

The **this pointer** is a hidden pointer inside every class member function that points to the class object the member function is working with.

Question No: 20 (Marks: 1) - Please choose one

Which of the following operator(s) take(s) one or no argument if overloaded?

- ► ++ (Page 162)
- -
- **>** +
- ► All of the given

Question No: 21 (Marks: 1) - Please choose one

Which of the following operators can not be overloaded?

- ► Scope resolution operator (::) (Page 141)
- ► Insertion operator (<<)
- ► Extraction operator (>>)
- ► The relation operator (>)

Question No: 22 (Marks: 1) - Please choose one

The type that is used to declare a reference or pointer is called its ------

- ► default type
- ► static type (Page 185) rep
- ► abstract type
- ► reference type

Question No: 23 (Marks: 1) - Please choose one

----- members are somewhere between public and private members. They are used in inheritance

- ▶ protected (Page 187) rep
- ▶ public
- ▶ private
- ▶ global

Question No: 24 (Marks: 1) - Please choose one

Which of these are examples of error handling techniques?

- ► Abnormal Termination
- ► Graceful Termination
- ► Return the illegal
- ► all of the given (Page 329)

Question No: 25 (Marks: 1) - Please choose one

_ "is a" relationship

- ► Inheritance (Page 25)
- ► Polymarphism
- **▶** abstraction
- ► encapsulation

Question No: 26 (Marks: 1) - Please choose one

Graphical representation of the classes and objects is called object model it shows ------

- ► Class Name only
- ► Class Name and attributes
- ► Relationships of the objects and classes
- ► all of the given Click here for detail rep

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FINALTERM EXAMINATION Spring 2010 CS304- Object Oriented Programming (Session - 4)

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

Classes like TwoDimensionalShape and ThreeDimensionalShape would normally be concrete, while classes like Sphere and Cube would normally be abstract.

- ► True <u>Click here for detail</u> rep
- ► False

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

Virtual functions allow you to

- reate an array of type pointer-to-base class that can hold pointers to derived classes.
- create functions that can never be accessed.
- ▶ group objects of different classes so they can all be accessed by the same function code.
- ▶ use the same function call to execute member functions of objects from different classes (Object-Oriented Programming in C++)

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

- ► True Click here for detail rep
- ► False

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

A copy constructor is invoked when

- ▶ a function do not returns by value.
- ▶ an argument is passed by value. (Page 78) rep
- ▶ a function returns by reference.
- ▶ an argument is passed by reference.

Question No: 5 (Marks: 1) - Please choose one Each try block can have _____ no. of catch blocks.

- ▶ 1
- ▶ 2
- ▶ 3
- ► As many as necessary. <u>Click here for detail</u> rep

한 경우가 되는 사람들이 가는 사람들이 되는 사람들이 되었다. 그리는 사람들이 가는 사람들이 모든 사람들이 되었다.
Question No: 6 (Marks: 1) - Please choose one Non Template Friend functions of a class are friends ofinstance/s of
 ► All Click here for detail rep ► One specific ► All instances of one date type ► None of the given options
Question No: 7 (Marks: 1) - Please choose one Template functions use than ordinary functions.
 ▶ Greater Memory ▶ Lesser Memory ▶ Equal Memory ▶ None of the given options
Question No: 8 (Marks: 1) - Please choose one The find() algorithm
 finds matching sequences of elements in two containers. finds a container that matches a specified container. takes iterators as its first two arguments. (Object-Oriented Programming in C++) takes container elements as its first two arguments.
Question No: 9 (Marks: 1) - Please choose one The copy() algorithm returns an iterator to
 ▶ the last element copied from. ▶ the last element copied to. ▶ the element one past the last element copied from. ▶ the element one past the last element copied to. (Object-Oriented Programming in C++)
Question No: 10 (Marks: 1) - Please choose one If you define a vector v with the default constructor, and define another vector w with a one-argument constructor to a size of 11, and insert 3 elements into each of these vectors with push_back(), then the size() member function will return for v and for w.
 11 for v and 3 for w. 0 for v and 0 for w. 0 for v and 3 for w.

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▶ 3 for v and 11 for w. (Object-Oriented Programming in C++)

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Question No: 11 (Marks: 1) - Please choose one

Which is not the Advantage of inheritance?

- ▶ providing class growth through natural selection. (Object-Oriented Programming in C++)
 - facilitating class libraries.
 - avoiding the rewriting of code.
 - providing a useful conceptual framework.

```
Question No: 12 (Marks: 1) - Please choose one
class DocElement
{
  public:
     virtual void Print() { cout << "Generic element"; }
};
class Heading : public DocElement
{
  public:
     void Print() { cout << "Heading element"; }
};
class Paragraph : public DocElement
{
  public:
     void Print() { cout << "Paragraph element"; }
};
void main()
{
     DocElement * p = new Paragraph();
     p->Print();
}
```

When you run this program, it will print out a single line to the console output.

What will be in that line?

Select one correct answer from the following list:

- ▶ Generic element
- ▶ Heading element
- ▶ Paragraph element
- ► Nothing will be printed.

Question No: 13 (Marks: 1) - Please choose one Which type of inheritance is being represented by the following statement, class X : public A, public B { }; ➤ Single inheritance (Page 41)

- ► Multiple inheritance
- ▶ Double inheritance
- ▶ None of the given options

Question No: 14 (Marks: 1) - Please choose one

When we write a class template the first line must be:

- ▶ template < class class name>
- template < class data_type>
- ▶ template < class T > (Page 257)

Here T can be replaced with any name but it is preferable.

▶ class class-name() class template<class name>

Question No: 15 (Marks: 1) - Please choose one

Function templates should be used where code and behavior must be identical.

- **►** True (Page 262)
- ► False

Question No: 16 (Marks: 1) - Please choose one

Which of the following is/are advantage[s] of generic programming?

- ▶ Reusability
- ▶ Writability
- Maintainability
- ► All of given (Page 256) rep

Question No: 17 (Marks: 1) - Please choose one

The specialization pattern <T*> after the name says that this specialization is to be used for every,

- ▶ data type
- meta type
- virtual type
- ▶ pointer type (Page 286)

Question No: 18 (Marks: 1) - Please choose one

A range is often supplied to an algorithm by two _

- ▶ italic
- iteration (Object-Oriented Programming in C++)
- ▶ iterator
- None of given

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Question No: 19 (Marks: 1) - Please choose one Which of the following is an integral part of an object?

- ➤ State
- ▶ Behavior
- ▶ Unique identity
- ► All of the given (Page 12)

Question No: 20 (Marks: 1) - Please choose one

Consider the following statement

Cupboard has books

What is the relationship between Cupboard and books?

- ▶ Composition
- ► Aggregation
- ► Inheritance
- ► None of the given options

Question No: 21 (Marks: 1) - Please choose one

Which sentence clearly defines an object?

- ▶ one instance of a class. (Page 23)
- another word for a class.
- ▶ a class with static methods.
- a method that accesses class attributes.

Question No: 22 (Marks: 1) - Please choose one

_____, which means if A declares B as its friend it does NOT mean that A can access private data of B. It only means that B can access all data of A.

- ► Friendship is one way only Click here for detail
- ► Friendship is two way only
- ► NO Friendship between classes
- ► Any kind of friendship

Question No: 23 (Marks: 1) - Please choose one

The statement objA=objB; will cause a compiler error if the objects are of different classes.

- ➤ True
- ► False (Object-Oriented Programming in C++)

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Question No: 24 (Marks: 1) - Please choose one

Consider the call given below of an overloaded operator "+",

Rational_number_1 + Rational_number_2

Where Rational_number_1 and Rational_number_2 are the two objects of Rational_number class (a user defined class). Identify which of the above two objects will be passed as an argument to the overloaded operator function?

- ► Rational number 1
- ► Rational number 2
- ▶ Both Rational_number_1 & Rational_number_2
- ▶ any of the two objects, randomly

Question No: 25 (Marks: 1) - Please choose one

If a class D has been derived using protected inheritance from class B (If B is a protected base and D is derived class) then public and protected members of B ------ accessed by member functions and friends of class D and classes derived from D

- can be Click here for detail
- ▶ cannot be
- ▶ does restirct to be
- ▶ not given

Question No: 26 (Marks: 1) - Please choose one

In Private ----- only member functions and friend classes or functions of a derived class can convert pointer or reference of derived object to that of parent object

- specialization
- ► inheritance (Page 216) rep
- ▶ abstraction
- composition

FINAL TERM EXAMINATION SPRING 2010

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

Classes like TwoDimensionalShape and ThreeDimensionalShape would normally be concrete, while classes like Sphere and Cube would normally be abstract.

- ► True Click here for detail rep
- **▶** False

22

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

Each try block can have _____ no. of catch blocks.

- ▶ 1
- ▶ 2
- ▶ 3
- As many as necessary. Click here detail

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

Function templates should be used where code and behavior must be identical.

- **►** True (Page 262)
- ► False

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

Consider the following statement

Cupboard has books

What is the relationship between Cupboard and books?

- ▶ Composition
- Aggregation
- ► Inheritance
- ▶ None of the given options

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

Identify the correct way of declaring an object of user defined template class A for char type members?

- ► A< char > obj; (Object-Oriented Programming in C++)
- <char>A obj;
- ► A obj<char>;
- ► Obj <char> A;

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

The user must define the operation of the copy constructor.

- ► True <u>Click here for detail</u>
- ▶ False

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

Default constructor is such constructor which either has no -----or if it has some parameters these have ------ values

- ► Parameter, temporary
- ▶ Null, Parameter
- ▶ Parameter, default (Page 75) rep
- ▶ non of the given

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

The type that is used to declare a reference or pointer is called its ------

- default type
- ► static type (Page 185)
- abstract type
- ▶ reference type

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

How the information hidden within an object can be accessed?

- ▶ Through its interface
- ▶ Through its private data members
- ► Through its private member functions
- ► Through both public and private members

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

The sub-object's life is not dependant on the life of master class in _____

- Separation
- ▶ Composition
- ► Aggregation (Page 134)
- ▶ None of the given

Question No: 11 (Marks: 1) - Please choose one

Encapsulation means

Select correct option:

- Extending the behaviour of class in another class
- ► Data and behaviour are tightly coupled within an entity (Page 16)
- ▶ One entity takes all the attributes and operations of the other
- ▶ Taking out the common features and put those in a separate class

Question No: 12 (Marks: 1) - Please choose one

Algorithms can only be implemented using STL containers.

- ► True
- ► False (Object-Oriented Programming in C++) rep

Question No: 13 (Marks: 1) - Please choose one

When we write a class template the first line must be:

- template < class class_name>
- template < class data_type>
- ► template < class T > (Page 257) rep

Here T can be replaced with any name but it is preferable.

▶ class class-name()

class template<class_name>

Question No: 14 (Marks: 1) - Please choose one

An STL container can not be used to,

- hold objects of class employee.
- ▶ store elements in a way that makes them quickly accessible.
- ▶ compile c++ programs. (Object-Oriented Programming in C++)
- organize the way objects are stored in memory

Question No: 15 (Marks: 1) - Please choose one

_____, which means if A declares B as its friend it does NOT mean that A can access private data of B. It only means that B can access all data of A.

- ► Friendship is one way only Click here for detail
- ► Friendship is two way only
- ► NO Friendship between classes
- ► Any kind of friendship

Question No: 16 (Marks: 1) - Please choose one

Which of the following may not be an integral part of an object?

- ▶ State
- ▶ Behavior
- ► Protected data members (Page 12)
- ► All of given

Question No: 17 (Marks: 1) - Please choose one

Public methods of base class can ------ be accessed in its derived class

- ► directly (Page 179) rep
- ▶ inderectly
- ▶ simultaniously
- ▶ non of the given

Question No: 18 (Marks: 1) - Please choose one

If a class D has been derived using protected inheritance from class B (If B is a protected base and D is derived class) then public and protected members of B ----- accessed by member functions and friends of class D and classes derived from D

- can be <u>Click here for detail</u>
- ▶ cannot be
- ▶ does restirct to be
- not given

Question No: 19 (Marks: 1) - Please choose one

What is true about function templates?

- ▶ The compiler generates only one copy of the function template
- ► The compiler generates a copy of function respective to each type of data (Page 256)
- ▶ The compiler can only generate copy for the int type data
- ▶ None of the given.

Question No: 20 (Marks: 1) - Please choose one

Which of the following is an integral part of an object?

- ➤ State
- ▶ Behavior
- ▶ Unique identity
- ► All of the given (Page 12) rep

Question No: 21 (Marks: 1) - Please choose one

When the base class and the derived class have a member function with the same name, you must be more specific which function you want to call (using).

- scope resolution operator
- ▶ dot operator
- ▶ null operator
- ► Operator overloading Click here for detail

FINALTERM EXAMINATION Fall 2009 CS304- Object Oriented Programming (Session - 4)

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

A template provides a convenient way to make a family of

- ▶ variables and data members
- ► functions and classes (Object-Oriented Programming in C++)
- ► classes and exceptions
- ▶ programs and algorithms

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

Which one of the following terms must relate to polymorphism?

- ► Static allocation
- ▶ Static typing
- ► Dynamic binding (Page 239) rep
- ► Dynamic allocation

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

What is true about function templates?

- ▶ The compiler generates only one copy of the function template
- ▶ The compiler generates a copy of function respective to each type of data (Page 256)

rep

- ▶ The compiler can only generate copy for the int type data
- ► None of the given.

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

Which of the following is the best approach if it is required to have more than one functions having exactly same functionality and implemented on different data types?

- ► Templates (Page 256) rep
- ▶ Overloading
- ▶ Data hiding
- ► Encapsulation

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

template <>
class Vector<char*> { }

This is an example of partial specialization.

- **►** True (Page 287)
- ▶ False

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

Classes like TwoDimensionalShape and ThreeDimensionalShape would normally be concrete, while classes like Sphere and Cube would normally be abstract.

- ► True Click here for detail rep
- ► False

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

A non-virtual member function is defined in a base class and overridden in a derived class; if that function is called through a base-class pointer to a derived class object, the derived-class version is used.

- ► True
- ► False

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

Assume a class Derv that is privately derived from class Base. An object of class Derv located in main() can access

- ▶ public members of Derv. (Object-Oriented Programming in C++) rep
- ▶ protected members of Derv.
- ▶ private members of Derv.
- ▶ protected members of Base.

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

In order to define a class template, the first line of definition must be:

- ► template <typename T> (Page 257) rep
- ▶ typename <template T>
- ► Template Class < ClassName>
- ▶ Class <Template T>

Question No: 10 (Marks: 1) - Please choose one If there is a pointer p to objects of a base class, and it contains the address of an object of a derived class, and both classes contain a nonvirtual member function, ding(), then the statement p->ding(); will cause the version of ding() in the class to be executed.
 ▶ Base (Object-Oriented Programming in C++) ▶ Derived ▶ Abstract ▶ virtual
Question No: 11 (Marks: 1) - Please choose one When the base class and the derived class have a member function with the same name, you must be more specific which function you want to call (using).
 scope resolution operator dot operator null operator Operator overloading Click here for detail
Question No: 12 (Marks: 1) - Please choose one Non Template Friend functions of a class are friends ofinstance/s of that class.
 ► All Click here for detail ► One specific ► All instances of one date type ► None of the given options
Question No: 13 (Marks: 1) - Please choose one The find() algorithm
 finds matching sequences of elements in two containers. finds a container that matches a specified container. takes iterators as its first two arguments. (Object-Oriented Programming in C++) rep takes container elements as its first two arguments.
Question No: 14 (Marks: 1) - Please choose one If you define a vector v with the default constructor, and define another vector w with a one-argument

- If you define a vector v with the default constructor, and define another vector w with a one-argument constructor to a size of 11, and insert 3 elements into each of these vectors with push_back(), then the size() member function will return _____ for v and _____ for w.
 - ▶ 11 for v and 3 for w.
 - ▶ 0 for v and 0 for w.
 - ▶ 0 for v and 3 for w.
 - ▶ 3 for v and 11 for w. (Object-Oriented Programming in C++) rep

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Question No: 15 (Marks: 1) - Please choose one

Which of the following may not be an integral part of an object?

- ➤ State
- ▶ Behavior
- ► Protected data members (Page 12)
- ► All of given

Question No: 16 (Marks: 1) - Please choose one

Which is not the Advantage of inheritance?

- ► providing class growth through natural selection. (Object-Oriented Programming in C++) rep
 - ► facilitating class libraries.
 - ▶ avoiding the rewriting of code.
 - providing a useful conceptual framework.

```
Question No: 17 (Marks: 1) - Please choose one
1class DocElement
public:
   virtual void Print() { cout << "Generic element"; }</pre>
};
2class Heading: public DocElement
public:
   void Print() { cout << "Heading element"; }</pre>
3class Paragraph: public DocElement
public:
   void Print() { cout << "Paragraph element"; }</pre>
};
void main()
   DocElement * p = new Paragraph();
   p->Print();
}
```

When you run this program, it will print out a single line to the console output.

What will be in that line?

Select one correct answer from the following list:

- ► Generic element
- ► Heading element
- ► Paragraph element
- ► Nothing will be printed.

Question No: 18 (Marks: 1) - Please choose one

When a virtual function is called by referencing a specific object by name and using the dot member selection operator (e.g., squareObject.draw()), the reference is resolved at compile time.

- ► True
- ► False (Object-Oriented Programming in C++)

(the function invocation is resolved at compile time)

Question No: 19 (Marks: 1) - Please choose one In case of multiple inheritance a derived class inherits,

- ▶ Only the public member functions of its base classes
- ▶ Only the public data members of its base classes
- ▶ Both public data members and member functions of all its base classes Click here for detail
- ▶ Data members and member functions of any two base classes

Question No: 20 (Marks: 1) - Please choose one

When we write a class template the first line must be:

- ▶ template < class class name>
- ▶ template < class data_type>
- ▶ template < class T > (Page 257) rep

Here T can be replaced with any name but it is preferable.

▶ class class-name()

class template < class_name >

Question No: 21 (Marks: 1) - Please choose one

Which of the following is incorrect line regarding function template?

- ▶ template<class T>
- ▶ template <typename U>
- ► Class<template T> (Page 257)
- ► template < class T, class U>

```
Question No: 22 (Marks: 1) - Please choose one
An STL container can not be used to,
    hold objects of class employee.
    store elements in a way that makes them quickly accessible.
    ▶ compile c++ programs. (Object-Oriented Programming in C++) rep
    organize the way objects are stored in memory
Question No: 23 (Marks: 1) - Please choose one
Algorithms can only be implemented using STL containers.
    ► True
    ► False
                (Object-Oriented Programming in C++) rep
Question No: 24 (Marks: 1) - Please choose one
Consider a class named Vehicle, which of the following can be the instance of class Vehicle?
         1. Car
         2. Computer
         3. Desk
         4. Ahmed
         5. Bicycle
         6. Truck
 ▶ 1, 4, 5
 2, 5, 6
 ▶ 1, 2, 3, 6
 ▶ 1, 5, 6 (correct)
Question No: 25 (Marks: 1) - Please choose one
Consider the code below,
class Fred {
public:
Fred();
};
int main()
Fred a[10]:
Fred^* p = new Fred[10];
Select the best option,
    ► Fred a[10]; calls the default constructor 09 times
Fred* p = new Fred[10]: calls the default constructor 10 times
    ▶ Produce an error
```

Muhammad Moaaz Siddiq - MCS (2nd) mc100401285@Gmail.com Campus:- Institute of E-Learning & Modern Studies (IEMS) Samundari ► Fred a[10]; calls the default constructor 11 times

Fred* p = new Fred[10]; calls the default constructor 11 times

► Fred a[10]; calls the default constructor 10 times

Fred* p = new Fred[10]; calls the default constructor 10 times Click here for detail

Question No: 26 (Marks: 1) - Please choose one

When a variable is define as **static** in a class then all object of this class,

- ▶ Have different copies of this variable
- ► Have same copy of this variable (Page 110)
- ► Can not access this variable
- ▶ None of given

Question No: 27 (Marks: 1) - Please choose one

The life of sub object is dependant on the life of master class in ______

- Separation
- ► Composition (Page 53)
- ▶ Aggregation
- ► None of the given

Question No: 28 (Marks: 1) - Please choose one

_____, which means if A declares B as its friend it does NOT mean that A can access private data of B. It only means that B can access all data of A.

- ► Friendship is one way only Click here for detail
- ► Friendship is two way only
- ► NO Friendship between classes
- ► Any kind of friendship

Question No: 29 (Marks: 1) - Please choose one

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

- > 1
- **-**
- **>** +
- ++ (Page 162)

Question No: 30 (Marks: 1) - Please choose one

In Private ----- only member functions and friend classes or functions of a derived class can convert pointer or reference of derived object to that of parent object

- specialization
- ► inheritance (Page 216) rep
- ▶ abstraction
- composition

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FINALTERM EXAMINATION

Fall 2009

CS304- Object Oriented Programming (Session - 1)

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

Which one of the following terms must relate to polymorphism?

- ► Static allocation
- ► Static typing
- ► Dynamic binding (Page 239) rep
- ► Dynamic allocation

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

Multiple inheritance can be of type

- ► Public
- ➤ Private
- ➤ Protected
- ► All of the given Click here for detail

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

When a subclass specifies an alternative definition for an attribute or method of its superclass, it is ______ the definition in the superclass.

- **▶** overload
- **▶** overriding (Page 34)
- copy riding
- ▶ none of given

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

Like template functions, a class template may not handle all the types successfully.

- ► True (Page 258) rep
- ► False

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

It is sometimes useful to specify a class from which no objects will ever be created.

- ► True (Object-Oriented Programming in C++)
- ► False

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

Assume a class Derv that is privately derived from class Base. An object of class Derv located in main() can access

- ▶ public members of Derv. (Object-Oriented Programming in C++) rep
- ▶ protected members of Derv.
- ▶ private members of Derv.
- ▶ protected members of Base.

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Question No: 7 (Marks: 1) - Please choose one A pointer to a base class can point to objects of a derived class. Click here for detail **►** True ► False Question No: 8 (Marks: 1) - Please choose one A copy constructor is invoked when ➤ a function do not returns by value. ► an argument is passed by value. (Page 78) rep ➤ a function returns by reference. ► an argument is passed by reference. Question No: 9 (Marks: 1) - Please choose one A function call is resolved at run-time in ▶ non-virtual member function. ▶ virtual member function. (Page 239) rep ▶ Both non-virtual member and virtual member function. ► None of given Question No: 10 (Marks: 1) - Please choose one When the base class and the derived class have a member function with the same name, you must be more specific which function you want to call (using ______). ► scope resolution operator ▶ dot operator ▶ null operator ► Operator overloading Click here for detail Question No: 11 (Marks: 1) - Please choose one Each try block can have _____ no. of catch blocks. **1 >** 2 ► As many as necessary. Click here for detail rep Question No: 12 (Marks: 1) - Please choose one Two important STL associative containers are _____ and ____. (Object-Oriented Programming in C++) rep > set,map ► sequence, mapping ▶ setmet, multipule ► sit,mat

Question No: 13 (Marks: 1) - Please choose one

The mechanism of selecting function at run time according to the nature of calling object is called,

- ▶ late binding
- ► static binding
- ▶ virtual binding
- ► None of the given options (Page 227)

Dynamic binding means that target function for a call is selected at run time

Question No: 14 (Marks: 1) - Please choose one

An abstract class is useful when

- ▶ We do not derive any class from it.
- ► There are multiple paths from one derived class to another.
- ▶ We do not want to instantiate its object. (Object-Oriented Programming in C++) rep
- ➤ You want to defer the declaration of the class.

Question No: 15 (Marks: 1) - Please choose one

Which of the following is incorrect line regarding function template?

- ► template < class T >
- ► template <typename U>
- ► Class<template T> (Page 257) rep
- ► template < class T, class U>

Question No: 16 (Marks: 1) - Please choose one

Which of the following is/are advantage[s] of generic programming?

- ► Reusability
- ► Writability
- ► Maintainability
- ► All of given (Page 256) rep

Question No: 17 (Marks: 1) - Please choose one

By default the vector data items are initialized to _____

- ► 0 Click here for detail rep
- ▶ 0.0
- ▶ 1
- ▶ null

Question No: 18 (Marks: 1) - Please choose one

Which one of the following functions returns the total number of elements in a vector.

- ► length();
- **▶** size(); (Page 318)
- **▶** ele();
- ➤ veclen();

Question No: 19 (Marks: 1) - Please choose one

Suppose you create an uninitialized vector as follows:

vector<int> evec;

After adding the statment,

evec.push_back(21);

what will happen?

- ▶ The following statement will add an element to the start (the back) of evec and will initialize it with the value 21.
- ► The following statement will add an element to the center of evec and will reinitialize it with the value 21.
- ▶ The following statement will delete an element to the end (the back) of evec and will reinitialize it with the value 21.
- ► The following statement will add an element to the end (the back) of evec and initialize it with the value 21. Click here for detail

Question No: 20 (Marks: 1) - Please choose one

An STL container can not be used to,

- ▶ hold objects of class employee.
- ▶ store elements in a way that makes them quickly accessible.
- **▶** compile c++ programs. (Object-Oriented Programming in C++) rep
- ► organize the way objects are stored in memory

Question No: 21 (Marks: 1) - Please choose one

Algorithms can only be implemented using STL containers.

- ► True
- ► False (Object-Oriented Programming in C++) rep

Question No: 22 (Marks: 1) - Please choose one

The main function of scope resolution operator (::) is,

- ► To define an object
- ▶ To define a data member
- ▶ To link the definition of an identifier to its declaration Click here for detail
- ► To make a class private

Question No: 23 (Marks: 1) - Please choose one

When is a constructor called?

- ▶ Each time the constructor identifier is used in a program statement
- ▶ During the instantiation of a new object (Object-Oriented Programming in C++)
- ▶ During the construction of a new class
- ► At the beginning of any program execution

```
Question No: 24 (Marks: 1) - Please choose one
Consider the code below,
class Fred {
public:
Fred();
int main()
Fred a[10];
Fred* p = new Fred[10];
Select the best option,
    ► Fred a[10]; calls the default constructor 09 times
Fred* p = new Fred[10];
    ► Produce an error
    ► Fred a[10]; calls the default constructor 11 times
Fred* p = new Fred[10]; calls the default constructor 11 times
    ► Fred a[10]; calls the default constructor 10 times
Fred* p = new Fred[10]; calls the default constructor 10 times
                                                                  Click here for detail
Question No: 25 (Marks: 1) - Please choose one
Associativity can be changed in operator overloading.
    ► True
    ► False (Page 141)
Question No: 26 (Marks: 1) - Please choose one
A normal C++ operator that acts in special ways on newly defined data types is said to be
    ▶ glorified.
    encapsulated.
    classified.
    overloaded.
                      (Object-Oriented Programming in C++)
Question No: 27 (Marks: 1) - Please choose one
Which operator can not be overloaded?
    ➤ The relation operator ( >= )
    ➤ Assignment operator ( = )
    ➤ Script operator ([])
    ► Conditional operator (?:) (Page 141)
```

Question No: 28 (Marks: 1) - Please choose one

Suppose obj1 and obj2 are two objects of a user defined class A. An + operator is overloaded to add obj1 and obj2 using the function call obj1+obj2.

Identify the correct function prototype against the given call?

- ► A operator + (A &obj);
- ▶ int + operator(); (Page 143)
- ▶ int operator (plus) ();
- ► A operator(A &obj3);

Question No: 29 (Marks: 1) - Please choose one

Default constructor is such constructor which either has no -----or if it has some parameters these have ----- values

- ► Parameter, temporary
- ► Null, Parameter
- ► Parameter, default (Page 75) rep
- ▶ non of the given

Question No: 30 (Marks: 1) - Please choose one

Public methods of base class can ----- be accessed in its derived class

- ► directly (Page 179) rep
- **▶** inderectly
- **▶** simultaniously
- ▶ non of the given