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CS304
Solved Final Terms Papers

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Year
2017

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

In the Name of Allāh, the Most Gracious, the Most Merciful

Paper Pattern

MCQS 40 each 1 mark
Short 4 each 2 marks
Short 4 each 3 marks
long 4 each 5 marks

Question No : 1 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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- Templates
- Overloading
- Overriding
- Friend function/class

Made by: Waqar Siddhu

Question No : 2 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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- A< char > obj;
- <char>A obj;
- A obj<char>;
- Obj <char> A;

Made by: Waqar Siddhu

Question No : 3 of 52

Marks: 1 (Budgeted Time 1 Min)

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 _____).

Answer (Please select your correct option)

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scope resolution operator

dot operator

null operator

Operator overloading

Made by: Waqar Siddh

Question No : 4 of 52

Marks: 1 (Budgeted Time 1 Min)

An abstract class is useful when,

Answer (Please select your correct option)

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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.

You want to defer the declaration of the class.

Made by: Waqar Siddh

Question No : 5 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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general template

partial specialization

complete specialization

ordinary function

Made by: Waqar Siddh

Question No : 6 of 52

Marks: 1 (Budgeted Time 1 Min)

Three main characteristics of "Object Oriented programming" are,

Answer (Please select your correct option)

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- encapsulation, dynamic binding, polymorphism
- polymorphism, overloading, overriding
- encapsulation, inheritance, dynamic binding
- encapsulation, inheritance, polymorphism

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Question No : 7 of 52

Marks: 1 (Budgeted Time 1 Min)

A private member or variable is not accessible to:

Answer (Please select your correct option)

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- Base class
- Derived class
- Abstract class
- virtual class

Made by: Waqar Siddhu

Question No : 8 of 52

Marks: 1 (Budgeted Time 1 Min)

A non virtual member function ding() in base and derived class, and pointer p to base class object contains the address of derived class object, then the statement p->ding() will execute ding() member function in _____ class.

Answer (Please select your correct option)

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- Base
- Derived
- Abstract
- virtual

Made by: Waqar Siddhu

Question No : 9 of 52

Marks: 1 (Budgeted Time 1 Min)

A virtual member function `ding()` in base and derived class, and pointer `p` to base class object contains the address of derived class object, then the statement `p->ding()` will execute `ding()` member function in _____ class.

Answer (Please select your correct option)

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Base

Derived

Virtual

Implemented

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Question No : 10 of 52

Marks: 1 (Budgeted Time 1 Min)

By default, which access level is assigned to members of a class?

Answer (Please select your correct option)

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Public

Private

Local

Protected

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Question No : 11 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following can be the instance of class Vehicle?

Answer (Please select your correct option)

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Car, Computer, Desk

Ahmad, Bicycle, Truck

Computer, Truck, Ahmad

Car, Bicycle, Truck

Made by: Waqar Siddhu

Question No : 12 of 52

Marks: 1 (Budgeted Time 1 Min)

In OOP's, advantage of inheritance include all of the given below except,

Answer (Please select your correct option)

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Provide a useful conceptual framwork

Reusing the code

Dealing with real world entities

Decrease maintainability

Made by: Waqar Siddh

Question No : 13 of 52

Marks: 1 (Budgeted Time 1 Min)

What would be the output of following code?

```
class dummy
{
private:
    int data;
```

Answer (Please select your correct option)

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Compile-time error

Output is 0

Run-time error

Output will be a garbage value

Made by: Waqar Siddh

Question No : 14 of 52

Marks: 1 (Budgeted Time 1 Min)

Which will be the good example of a method that is shared by all instances of a class?

Answer (Please select your correct option)

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Virtual method

Overloaded method

Constant method

Static method

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Question No : 15 of 52

Marks: 1 (Budgeted Time 1 Min)

If you do not initialize static variable of int type then it is automatically initialized with _____.

Answer (Please select your correct option)

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0

1

-1

Null

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Question No : 16 of 52

Marks: 1 (Budgeted Time 1 Min)

Public methods of base class can be _____ accessed in the derived class.

Answer (Please select your correct option)

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Directly

Indirectly

Consecutively

Simultaneously

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Question No : 17 of 52

Marks: 1 (Budgeted Time 1 Min)

Which members are lies somewhere between public and private members?

Answer (Please select your correct option)

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Protected members

Global members

Static members

Friends members

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Question No : 18 of 52

Marks: 1 (Budgeted Time 1 Min)

The operations of copy constructor must define by:

Answer (Please select your correct option)

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System

User

System and User

Administrator

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Question No : 19 of 52

Marks: 1 (Budgeted Time 1 Min)

A base class member or method that is alternatively defined in derived class is known as _____.

Answer (Please select your correct option)

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Overloaded

Copy rding

Overwriting

Overriding

Made by: Waqar Siddhu

Question No : 20 of 52

Marks: 1 (Budgeted Time 1 Min)

All the _____ members of base class can be accessed from the derived class.

Answer (Please select your correct option)

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Private

Protected

Non private

Public

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Question No : 21 of 52

Marks: 1 (Budgeted Time 1 Min)

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 _____.

Answer (Please select your correct option)

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Run time

Compile time

Processing time

Execution time

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Question No : 22 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following causes a compile time error?

Answer (Please select your correct option)

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Declaring object of a concrete class in the definition of main function

Writing output statement in constructor's definition

Declaring object of a class having atleast one pure virtual function

Declaring object of a class having all virtual functions

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Question No : 23 of 52

Marks: 1 (Budgeted Time 1 Min)

Multiple inheritance can be of type

Answer (Please select your correct option)

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Public, Private

Private, Protected

Protected, Public

Public, Protected, Private

Made by: Waqar Siddh

Question No : 24 of 52

Marks: 1 (Budgeted Time 1 Min)

Consider the following statements:
1) int iArray[5];
2) int *pArr = iArray;

Answer (Please select your correct option)

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Error in first statement

Error in second statement

Error in both statements

No error in both statements

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Question No : 25 of 52

Marks: 1 (Budgeted Time 1 Min)

```
template<> class Vector<void*>(  
    void** p,  
    //...  
    void*& operator[] ((int i);  
);
```

Answer (Please select your correct option)

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This specialization can be used as the common implementation for all Vectors of pointers.

This specialization can then be used as the implementation for all types of classes.

This specialization can then be used for double type pointers.

This specialization should be used for Vectors of int types.

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Question No : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following is NOT an advantage of generic programming?

Answer (Please select your correct option)

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Reusability

Writability

Maintainability

Efficient memory usage

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Question No : 27 of 52

Marks: 1 (Budgeted Time 1 Min)

Which one of the following is example of complete specialization,

Answer (Please select your correct option)

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template <typename T> class Vector ();

template <typename T> class Vector<T*> ();

template<> class Vector <char*> ();

template <class T> class Vector< T*> ();

Made by: Waqar Siddhu

Question No : 28 of 52

Marks: 1 (Budgeted Time 1 Min)

Template functions use _____ than ordinary functions.

Answer (Please select your correct option)

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More Memory

Less Memory

Same Memory

Different Memory

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Question No : 29 of 52

Marks: 1 (Budgeted Time 1 Min)

An STL algorithm is

Answer (Please select your correct option)

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A standalone function that operates on containers.

A link between member functions and containers.

A friend function of appropriate container classes.

A member function of appropriate container classes.

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Question No : 30 of 52

Marks: 1 (Budgeted Time 1 Min)

A vector is an appropriate container if you

Answer (Please select your correct option)

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- want to insert lots of new elements at arbitrary locations in the vector.
- want to insert new elements, but always at the front of the container.
- are given an index number in order to quickly access the corresponding element.
- are given an element key value in order to quickly access the corresponding element.

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Question No : 31 of 52

Marks: 1 (Budgeted Time 1 Min)

The find() algorithm

Answer (Please select your correct option)

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- Finds matching sequences of elements in two containers.
- Finds a container that matches a specified container.
- Takes iterators as its first two arguments.
- Takes container elements as its first two arguments.

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Question No : 32 of 52

Marks: 1 (Budgeted Time 1 Min)

A range is often supplied to an algorithm by two _____ values.

Answer (Please select your correct option)

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- italic
- iteration
- iterator
- container

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Question No : 33 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following is Not an example of error handling techniques?

Answer (Please select your correct option)

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Abnormal Termination

Graceful Termination

Return the illegal value

Returning a value

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Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

_____ remain in memory even when all objects of a class have been destroyed.

Answer (Please select your correct option)

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Static variables

Instance variable

Primitive variables

Dynamic Variables

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Question No : 35 of 52

Marks: 1 (Budgeted Time 1 Min)

Assume that a user wants to count, how many objects are created for a particular class, which one will be most suitable to perform this task:

Answer (Please select your correct option)

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Const data member

Non static data member

idea

Static data member

Global data member

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Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

We change the evaluation precedence of operators through operator overloading

Answer (Please select your correct option)

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Can

Can not

doubt

Only

Just

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Question No : 37 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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Data can be quickly inserted or deleted at any arbitrary location.

Data can be relatively slowly inserted or deleted at any arbitrary location.

Data can not be quickly inserted or deleted at either end.

Data can be relatively slowly inserted or deleted at either end

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Question No : 38 of 52

Marks: 1 (Budgeted Time 1 Min)

Suppose you create an uninitialized vector as follows:

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

Answer (Please select your correct option)

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It will add an element to the start of evec and will initialize it with 21.

It will add an element to the center of evec and will reinitialize it with 21.

It will delete an element to the end (the back) of evec and will reinitialize it with 21.

It will add an element to the end (the back) of evec and initialize it with 21.

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Question No : 39 of 52

Marks: 1 (Budgeted Time 1 Min)

```
class DocElement
{
public:
    virtual void Print() { cout << "Generic element", }
};
class Heading : public DocElement
```

Answer (Please select your correct option)

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Generic element

Heading element

Paragraph element

Nothing will be printed.

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Question No : 40 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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1

2

3

As many as necessary.

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Question No : 41 of 52

Marks: 2 (Budgeted Time 4 Min)

Give at least one advantage and one disadvantage of templates.

Answer (Please [click here](#) to Add Answer)

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Rich text editor toolbar with options like Bold, Italic, Underline, and text color.

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Question No : 42 of 52

Marks: 2 (Budgeted Time 4 Min)

Person class is an abstract class, which have some specific features. Briefly describe the silent features of abstract class.

Answer ([Please click here to Add Answer](#))

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Made by: Waqar Siddh

Question No : 43 of 52

Marks: 2 (Budgeted Time 4 Min)

While overloading stream insertion and extraction operators a programmer can not declare ostream and istream reference as constant. Why?

Answer ([Please click here to Add Answer](#))

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Made by: Waqar Siddh

Question No : 44 of 52

Marks: 2 (Budgeted Time 4 Min)

What do you mean by Stack unwinding?

Answer ([Please click here to Add Answer](#))

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Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

Describe three properties necessary for a container to implement Generic Algorithms.

Answer ([Please click here to Add Answer](#))

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Question No : 46 of 52

Marks: 3 (Budgeted Time 6 Min)

Consider the code given below and answer the questions at the end,

```
class Base
{
private:
    int x;
```

Answer ([Please click here to Add Answer](#))

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Made by: Waqar Siddhique

Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

In which situation do we need to implement virtual inheritance? Explain with the help of an example.

Answer ([Please click here to Add Answer](#))

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Made by: Waqar Siddhique

Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

Tell the logical error/s in the code given below with reference to resource management, also describe how we can correct that error/s.

```
class Test{  
public:  
int function1(){
```

Answer ([Please click here to Add Answer](#))

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Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

The code given below has one template function as a friend of a template class,
1. You have to identify any error/s in this code and describe the reason for error/s.
2. Give the correct code after removing the error/s.

```
template<typename U>  
void Test(U);
```

Answer ([Please click here to Add Answer](#))

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

What is virtual function? Explain it with coding example.

Answer ([Please click here to Add Answer](#))

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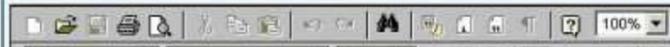
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Briefly give benefits of the use of static variable noOfStudents along with static method by considering following coded example:

```
class Student {  
    static int noOfStudents;
```

Answer ([Please click here to Add Answer](#))

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