



Virtual University

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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)

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

Answer (Please select your correct option)

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☒ template <typename T>

☐ typename <template T>

☐ Template Class <ClassName>

☐ Class <Template T>

Made by: Waqar Siddhu

Question No : 4 of 52

Marks: 1 (Budgeted Time 1 Min)

A copy constructor is invoked when

Answer (Please select your correct option)

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☐ a function do not returns by value.

☒ an argument is passed by value.

☐ a function returns by reference.

☐ an argument is passed by reference.

Made by: Waqar Siddhu

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 Siddhu

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 Siddhu

Question No : 7 of 52

Marks: 1 (Budgeted Time 1 Min)

Inheritance is a way to

Answer (Please select your correct option)

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- ☐ organize data.
- ☐ pass arguments to objects of classes.
- ☒ add features to existing classes without rewriting them.
- ☐ improve data-hiding and encapsulation.

Made by: Waqar Siddhu

Question No : 8 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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- ☒ Sub-typing
- ☐ Super-typing
- ☐ Multiple-typing
- ☐ Restricted-typing

Made by: Waqar Siddhu

Question No : 9 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following is the way to extract common behaviour and attributes from the given classes and make a separate class of those common behaviours and attributes?

Answer (Please select your correct option)

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☒ Generalization

☐ Sub-typing

☐ Specialization

☐ Extension

Made by: Waqar Siddhu

Question No : 10 of 52

Marks: 1 (Budgeted Time 1 Min)

Which is true about specialization in case of inheritance?

Answer (Please select your correct option)

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☒ In specialization derived class has some restricted behavior of its own.

☐ In specialization derived class shows some extended behavior of its parent.

☐ In specialization derived class should be abstract.

☐ In specialization, derived class is behaviourally compatible with base class

Made by: Waqar Siddhu

Question No : 11 of 52

Marks: 1 (Budgeted Time 1 Min)

The function that is automatically called when an object of a class is created is named as _____.

Answer (Please select your correct option)

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☒ Constructor

☐ Destructor

☐ Member Functions

☐ Inline Functions

Made by: Waqar Siddhu

Question No : 12 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following is used to free the memory space allocated as a result of object declaration?

Answer (Please select your correct option)

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☐ Constructor

☐ New operator

☒ Destructor

☐ Accessor Function

Made by: Waqar Siddhu

Question No : 13 of 52

Marks: 1 (Budgeted Time 1 Min)

A class can be identified from a statement by -----.

Answer (Please select your correct option)

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☒ Noun

☐ Pronoun

☐ Verb

☐ Adverb

Made by: Waqar Siddhu

Question No : 14 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

Made by: Waqar Siddhu

Question No : 15 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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☐ default type

☒ static type

☐ abstract type

☐ reference type

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Question No : 16 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 : 17 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 : 18 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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☐ Derived class

☐ Abstract class

☒ Base class

☐ Concrete class

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Question No : 19 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

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Question No : 20 of 52

Marks: 1 (Budgeted Time 1 Min)

A template argument is preceded by the keyword _____.

Answer (Please select your correct option)

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☐ vector, class

☐ typename, class

☒ template, class

☐ type, class

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Question No : 21 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 : 22 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 *> { };`

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Question No : 23 of 52

Marks: 1 (Budgeted Time 1 Min)

Non Template Friend functions of a class are friends of _____ instance/s of that class.

Answer (Please select your correct option)

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☐ One☐ Two☐ All instances of one data type☒ All

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Question No : 24 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 : 25 of 52

Marks: 1 (Budgeted Time 1 Min)

By default the vector data items are initialized to _____.

Answer (Please select your correct option)

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☒ 0

☐ 1

☐ 2

☐ 4

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Question No : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

Two important STL associative containers are _____ and _____.

Answer (Please select your correct option)

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☒ set,map

☐ sequence,mapping

☐ set,map,multipule

☐ set,map

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Question No : 27 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 : 28 of 52

Marks: 1 (Budgeted Time 1 Min)

An STL container can not be used to:

Answer (Please select your correct option)

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- ☐ Hold objects of class employee.
- ☐ Store elements in a way that makes them quickly accessible.
- ☒ Compile c++ programs.
- ☐ Organize the way objects are stored in memory

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Question No : 29 of 52

Marks: 1 (Budgeted Time 1 Min)

The copy() algorithm returns an iterator to

Answer (Please select your correct option)

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- ☐ 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.

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Question No : 30 of 52

Marks: 1 (Budgeted Time 1 Min)

_____ follow try block to catch the thrown object.

Answer (Please select your correct option)

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☒ Catch block

☐ Throw block

☐ Main block

☐ Try block

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Question No : 31 of 52

Marks: 1 (Budgeted Time 1 Min)

We can initialize the constant data members of a class without using the assignment operator through:

Answer (Please select your correct option)

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☐ Const data members

☒ Static data members

☐ Constructor

☐ Member initialization list

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Question No : 32 of 52

Marks: 1 (Budgeted Time 1 Min)

In order to reuse the characteristics of more than one parent class, we must use:

Answer (Please select your correct option)

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☐ Inheritance

☐ Protected inheritance

☒ Multiple inheritance

☐ Private inheritance

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Question No : 33 of 52

Marks: 1 (Budgeted Time 1 Min)

A virtual function is a function that is expected to redefine in _____ class.

Answer (Please select your correct option)

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☐ Base class

☐ Parent class

☐ Super class

☒ Derived class

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Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

In abnormal termination our program is terminated _____.

Answer (Please select your correct option)

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☐ Manually

☐ Normally

☒ Abnormally

☐ Routinely

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Question No : 35 of 52

Marks: 1 (Budgeted Time 1 Min)

Default constructor either has no _____ or parameters with _____ values.

Answer (Please select your correct option)

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☐ Parameters, temporary

☐ Parameters, null

☒ Parameters, default

☐ Parameters, zero

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Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

Which is not the Advantage of inheritance?

Answer (Please select your correct option)

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- ☐ facilitating class libraries.
- ☐ avoiding the rewriting of code.
- ☐ providing a useful conceptual framework.
- ☒ providing class growth through natural selection.

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Question No : 37 of 52

Marks: 1 (Budgeted Time 1 Min)

A pointer to a base class can point to object of a _____ class.

Answer (Please select your correct option)

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- ☐ Base
- ☒ Derived
- ☐ Abstract
- ☐ Virtual

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Question No : 38 of 52

Marks: 1 (Budgeted Time 1 Min)

A template provides a convenient way to make a family of

Answer (Please select your correct option)

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- ☐ variables and data members.
- ☒ functions and classes
- ☐ classes and exceptions
- ☐ programs and algorithms

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Question No : 39 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

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☐ data type

☐ meta type

☐ virtual type

☒ pointer type

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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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☐ 2

☐ 3

☒ As many as necessary.

☐ 1

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Question No : 41 of 52

Marks: 2 (Budgeted Time 4 Min)

How can we set the default values for NON type parameters?

Answer (Please click here to Add Answer)

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Question No : 42 of 52

Marks: 2 (Budgeted Time 4 Min)

Can we achieve Information Hiding by separating Interface and Implementation of an object? Justify your answer.

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

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Question No : 43 of 52

Marks: 2 (Budgeted Time 4 Min)

In which situations we should use Operator Overloading and in which situations we should use Templates.

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

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Question No : 44 of 52

Marks: 2 (Budgeted Time 4 Min)

Describe two key components of STL?

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

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Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

If we declare a function as friend of a template class will it be a friend for a particular data type or for all data types of that class.

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

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Question No : 46 of 52

Marks: 3 (Budgeted Time 6 Min)

Tell the two ways to indicate the compiler that we are overloading post increment operator.

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

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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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Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

Give the general syntax of nested try catch blocks?

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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Made by: Waqar Siddhu

Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

Consider the following code segment:

```
class Complex{  
private:  
double real, img;  
public:
```

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

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Made by: Waqar Siddhu

Question No : 51 of 52

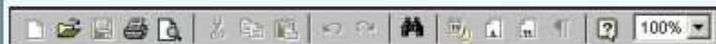
Marks: 5 (Budgeted Time 10 Min)

Consider the following code segment:

```
class Alphabets {  
public:  
virtual void write()=0;  
};
```

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

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Made by: Waqar Siddhu

Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

What is the output produced by the following program?

```
#include <iostream.h>  
  
void sample_function(double test) throw (int);  
  
int main()
```

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

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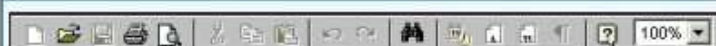
Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

```
{  
    try  
    {  
        cout << "Trying \n";  
        sample_function(98.6);  
        cout << "Trying after call \n";  
    }  
}
```

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

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Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

```
    }  
    catch(int)  
    {  
        cout << "Catching \n";  
    }  
}
```

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

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Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

```
    cout << "End program \n";  
    return 0;  
}  
void sample_function(double test) throw (int)  
{  
    cout << "Starting sample_function \n";  
}
```

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

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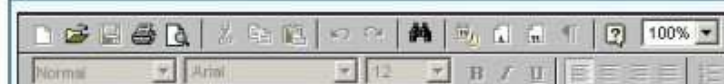
Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

```
void sample_function(double test) throw (int)  
{  
    cout << "Starting sample_function \n";  
    if(test < 100)  
        throw 42;  
}
```

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

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