



Virtual University

About Us

CS304
Solved Final Terms Papers

Waqar.siddhu@gmail.com

Year
2017

For More Plz Visit

WWW.VirtualAcademyLive.com

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 : 2 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☒ public members of Derv.

☐ protected members of Derv.

☐ private members of Derv.

☐ protected members of Base.

Made by: Waqar Siddhu

Question No : 3 of 52

Marks: 1 (Budgeted Time 1 Min)

A class template _____

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☒ Facilitates reuse of class

☐ Does not facilitate reuse of class

☐ Does not support generic methods

☐ Does not support static members

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)

WWW.VirtualAcademyLive.com

☐

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)

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.

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐

No

☒

Only if the two classes have the same name

☐

Only if the main program does not declare both kinds

☐

Yes

Made by: Waqar Siddhu

Question No : 6 of 52

Marks: 1 (Budgeted Time 1 Min)

What is a class?

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐

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.

Made by: Waqar Siddhu

Question No : 7 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)

WWW.VirtualAcademyLive.com

☐ Base

☒ Derived

☐ Virtual

☐ Implemented

Made by: Waqar Siddhu

Question No : 8 of 52

Marks: 1 (Budgeted Time 1 Min)

What a derived class can add?

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ New data members only

☐ New member functions only

☒ New data members, member functions and constructor/destructors

☐ New constructors and destructor only

Made by: Waqar Siddhu

Question No : 9 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following is directly related to polymorphism?

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ Const members

☒ Overriding

☐ Static members

☐ Const members functions

Made by: Waqar Siddhu

Question No : 10 of 52

Marks: 1 (Budgeted Time 1 Min)

Separation of implementation from interface provides the facility to restrict the _____ from direct access.

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ Data member

☐ Data function

☐ Class

☒ Object

Made by: Waqar Siddhu

Question No : 11 of 52

Marks: 1 (Budgeted Time 1 Min)

A non-static member function can be called only after _____ the object of that class.

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☒ Instantiating

☐ Executing

☐ Defining

☐ Opening

Made by: Waqar Siddhu

Question No : 12 of 52

Marks: 1 (Budgeted Time 1 Min)

What will be the value of the variable data and data2 respectively, If the function below is called 4 times?

```
void func()
{
    static int data = 4;
    int data2 = 4;
```

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ 8, 5

☐ 5, 8

☐ 5, 5

☐ 7, 5

Made by: Waqar Siddhu

Question No : 13 of 52

Marks: 1 (Budgeted Time 1 Min)

Which members are lies somewhere between public and private members?

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐

Protected members

☐

Global members

☐

Static members

☐

Friends members

Made by: Waqar Siddhu

Question No : 14 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)

WWW.VirtualAcademyLive.com

☐

Overwriting

☐

Overriding

☐

Overloaded

☐

Copy riding

Made by: Waqar Siddhu

Question No : 15 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)

WWW.VirtualAcademyLive.com

☐

Private

☐

Protected

☐

Non private

☐

Public

Made by: Waqar Siddhu

Question No : 16 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ late binding

☐ static binding

☒ virtual binding

☐ hybrid binding

Made by: Waqar Siddhu

Question No : 17 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)

WWW.VirtualAcademyLive.com

☐ Derived class

☐ Abstract class

☒ Base class

☐ Concrete class

Made by: Waqar Siddhu

Question No : 18 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ template < class class_name >

☐ template < class_name data_type >

☒ template < class T >

☐ class template < class_name >

Made by: Waqar Siddhu

Question No : 19 of 52

Marks: 1 (Budgeted Time 1 Min)

The following function template returns the maximum of ____ values:

```
template <typename T>
inline T const& max (T const& a, T const& b)
{
    // if a < b then use b else use a
}
```

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

1

☐

2

☐

3

☐

4

☐

Made by: Waqar Siddhu

Question No : 20 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)

WWW.VirtualAcademyLive.com

Error in first statement

☐

Error in second statement

☐

Error in both statements

☐

No error in both statements

☒

Made by: Waqar Siddhu

Question No : 21 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)

WWW.VirtualAcademyLive.com

Reusability

☐

Writability

☐

Maintainability

☐

Efficient memory usage

☒

Made by: Waqar Siddhu

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)

WWW.VirtualAcademyLive.com

☐ `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 : 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)

WWW.VirtualAcademyLive.com

☐ One

☐ Two

☐ All instances of one date type

☒ All

Made by: Waqar Siddhu

Question No : 24 of 52

Marks: 1 (Budgeted Time 1 Min)

Template functions use _____ than ordinary functions.

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ More Memory

☒ Less Memory

☐ Same Memory

☐ Different Memory

Made by: Waqar Siddhu

Question No : 25 of 52

Marks: 1 (Budgeted Time 1 Min)

An STL algorithm is

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ 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.

Made by: Waqar Siddhu

Question No : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

A vector is an appropriate container if you

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ 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.

Made by: Waqar Siddhu

Question No : 27 of 52

Marks: 1 (Budgeted Time 1 Min)

An STL container can not be used to:

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ 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

Made by: Waqar Siddhu

Question No : 28 of 52

Marks: 1 (Budgeted Time 1 Min)

The copy() algorithm returns an iterator to

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

- ☐ 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.

Made by: Waqar Siddhu

Question No : 29 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)

WWW.VirtualAcademyLive.com

- ☐ italic
- ☐ iteration
- ☐ iterator
- ☐ container

Made by: Waqar Siddhu

Question No : 30 of 52

Marks: 1 (Budgeted Time 1 Min)

We must release dynamic memory allocated in try block in _____

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

- ☐ In constructor
- ☒ Catch block
- ☐ In main function block
- ☐ No need to release memory

Made by: Waqar Siddhu

Question No : 31 of 52

Marks: 1 (Budgeted Time 1 Min)

Hiding details of an object from the other parts of a program is done by which principle of OOP?

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ Obfuscation

☐ Data Mining

☐ Compilation

☒ Encapsulation

Made by: Waqar Siddhu

Question No : 32 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ Name

☐ Age

☐ Work()

☒ Both Name and Age

Made by: Waqar Siddhu

Question No : 32 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ Name

☐ Age

☐ Work()

☒ Both Name and Age

Made by: Waqar Siddhu

Question No : 33 of 52

Marks: 1 (Budgeted Time 1 Min)

The relationship between "Speaker" and "Mobile" is:

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ Aggregation

☐ Composition

☐ Inheritance

☒ One way association

Made by: Waqar Siddhu

Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

The relationship between "SIM" and "Mobile" is:

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ Aggregation

☐ Composition

☐ Inheritance

☐ Two way association

Made by: Waqar Siddhu

Question No : 35 of 52

Marks: 1 (Budgeted Time 1 Min)

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

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐ 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.

Made by: Waqar Siddhu

Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

A static function

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐

should be called when an object is destroyed.

☐

is closely connected to an individual object of a class.

☒

can be called using the class name followed by function name.

☐

is used when a dummy object must be created.

Made by: Waqar Siddhu

Question No : 37 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)

WWW.VirtualAcademyLive.com

☐

Generic element

☐

Heading element

☐

Paragraph element

☒

Nothing will be printed.

Made by: Waqar Siddhu

Question No : 38 of 52

Marks: 1 (Budgeted Time 1 Min)

Which one is a logical abstract base class for a class called "footballPlayer"?

Answer (Please select your correct option)

WWW.VirtualAcademyLive.com

☐

Ground

☐

Sport

☒

Athlete

☐

Team

Made by: Waqar Siddhu

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)

WWW.VirtualAcademyLive.com

☐ data type

☐ meta type

☐ virtual type

☒ pointer type

Made by: Waqar Siddhu

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)

WWW.VirtualAcademyLive.com

☐ 2

☐ 3

☒ As many as necessary.

☐ 1

Made by: Waqar Siddhu

Question No : 41 of 52

Marks: 2 (Budgeted Time 4 Min)

What are the non - type parameters for templates?

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

WWW.VirtualAcademyLive.com

Normal Arial 12 B I U

Made by: Waqar Siddhu

Question No : 42 of 52

Marks: 2 (Budgeted Time 4 Min)

What is the difference between Simple Model and Object Oriented Model?

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

WWW.VirtualAcademyLive.com

Normal Arial 12 B I U

Made by: Waqar Siddhu

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](#))

WWW.VirtualAcademyLive.com

Normal Arial 12 B I U

Made by: Waqar Siddhu

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](#))

WWW.VirtualAcademyLive.com

Normal Arial 12 B I U

Made by: Waqar Siddhu

Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

What will be output after executing following lines of code, (suppose there is no error and code will be executed correctly), justify your answer as well,

```
class Student{
    static int noOfStudents;
    int rollNo;
public:
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

```
Student::Student(){
    noOfStudents++;
}
Student::~Student(){
    noOfStudents--;
}
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

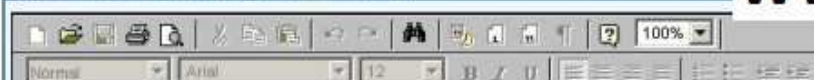
Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

```
static int getTotalStudent(){
    return noOfStudents;
};
int Student::noOfStudents = 0;
int main(){
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

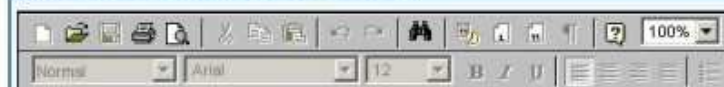
Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

```
Student obj1,obj2,  
{  
    Student obj3;  
}  
cout<<Student::getTotalStudent();
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

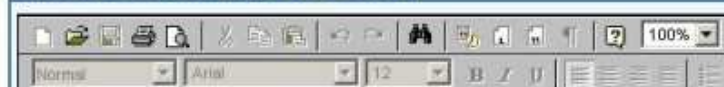
Question No : 46 of 52

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](#))

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

Question No : 47 of 52

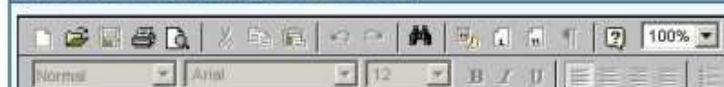
Marks: 3 (Budgeted Time 6 Min)

Identify and correct the syntax error(s) in the given code snippet?

```
template<classname T>  
class Template_class {  
  
    private:  
    T data;
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

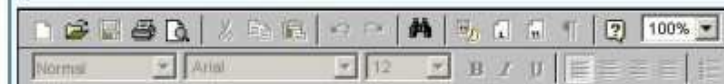
Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
//...
Public:
//...
void input();
};
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

Question No : 47 of 52

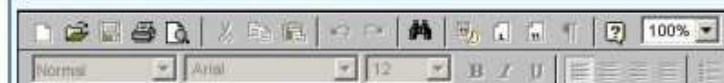
Marks: 3 (Budgeted Time 6 Min)

```
template< class T >
void Template_class::input( ) {
    cin>>data;
}

void main()
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

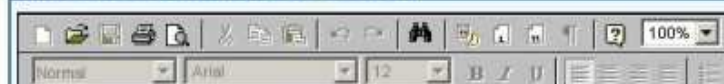
Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
void main()
{
    Template_class <int>obj;
    obj.input();
}
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

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)

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

```
try(  
    FILE *fileptr = fopen("filename.txt","w");  
    throw exception();  
    fclose(fileptr);  
    return 0;  
)
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

```
try{  
    ...  
} catch(Exception e){  
    ...  
}  
};
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

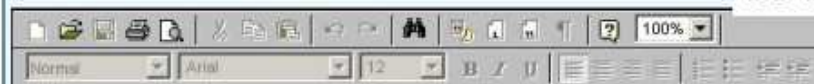
The code given below has one template function as a friend of a template class,

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](#))

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu

Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

```
template< class T >
class B {
    int data;
    public:
    friend void Test<>( T );
```

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

WWW.VirtualAcademyLive.com



Made by: Waqar Siddhu