

VIRTUAL UNIVERSITY OF PAKISTAN

A Good Education is a Foundation For a Better Future

CORRECT ANSWER SOLVED BY HADI
EMAIL: hadirajputofficial@gmail.com
WHATSAPP & CALL: 03087122922

(Final Term Past Paper)

(Made by Waqar & Solved By Hadi)

WARNING: Team HADI is not responsible for any mistake or wrong answer. All students reading and using this document may check and confirm the answers at their own.



WhatsApp: 03087122922



FACEBOOK ID: <https://www.facebook.com/hadipastpapers/>

Best of luck!



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)

- Templates
- Overloading
- Overriding
- Friend function/class



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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



HADI
VU
PAST
PAPER

Answer (Please select your correct option)

A< char > obj;

<char>A obj;

A obj<char>;

Obj <char> A;

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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)

- `template <typename T>`
- `typename <template T>`
- `Template Class <ClassName>`
- `Class <Template T>`



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question No : 4 of 52

Marks: 1 (Budgeted Time 1 Min)

A copy constructor is invoked when

Answer (Please select your correct option)

- a function do not returns by value.
- an argument is passed by value.
- a function returns by reference.
- an argument is passed by reference.



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

- general template
- partial specialization
- complete specialization
- ordinary function



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question No : 6 of 52

Marks: 1 (Budgeted Time 1 Min)

Which one of the following features of OOP is used to derive a class from another?

Answer (Please select your correct option)

Encapsulation

Polymorphism

Data hiding

Inheritance



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question No : 7 of 52

Marks: 1 (Budgeted Time 1 Min)

Inheritance is a way to

Answer (Please select your correct option)

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



HADI
VU
PAST
PAPER

MADE BY HADI

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)

Sub-typing

Super-typing

Multiple-typing

Restricted-typing



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

Generalization

Sub-typing

Specialization

Extension



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Which is true about specialization in case of inheritance?

Answer (Please select your correct option)

- In specialization derived class has some restricted behavior of its own. **i think** ✓
- 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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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

Answer (Please select your correct option)

Constructor

Destructor

Member Functions

Inline Functions



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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

Answer (Please select your correct option)

- Constructor
- New operator
- Destructor
- Accessor Function



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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

Answer (Please select your correct option)

Noun

Pronoun

Verb

Adverb



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadiqaiputofficial@gmail.com WhatsApp: 03087122922 (Team Hadi Lahore)

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)

- Directly
- Indirectly
- Consecutively
- Simultaneously



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

default type

static type

abstract type

reference type



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

- System
- User
- System and User
- Administrator



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

- Private
- Protected
- Non private
- Public



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

Derived class



Abstract class

Base class

Concrete class



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question No : 19 of 52

Marks: 1 (Budgeted Time 1 Min)

Multiple inheritance can be of type

Answer (Please select your correct option)

- Public, Private
- Private, Protected
- Protected, Public
- Public, Protected, Private



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

vector, class

typename, class

template, class

type, class



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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)

Error in first statement

Error in second statement

Error in both statements

No error in both statements



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Which one of the following is example of complete specialization,

Answer (Please select your correct option)

`template <typename T> class Vector { };`

`template <typename T> class Vector<T*> { };`

`template<> class Vector <char*> { };`

`template <class T> class Vector< T *> { };`



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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)

- One
- Two
- All instances of one date type
- All



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question No : 24 of 52

Marks: 1 (Budgeted Time 1 Min)

Template functions use _____ than ordinary functions.



HADI
VU
PAST
PAPER

Answer (Please select your correct option)

More Memory

Less Memory

Same Memory

Different Memory

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

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)

- 0
- 1
- 2
- 4



HADI
VU
PAST
PAPER

0	0
3	3
0	0
8	8
7	7
1	1
2	2
2	2
9	9
2	2
2	2

MADE BY HADI
Email: hadirainputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question No : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

Two important STL associative containers are _____ and _____.

Answer (Please select your correct option)

- set,map
- sequence,mapping
- setmet,multipule
- sit,mat



HADI
VU
PAST
PAPER

MADE BY HADI

Email:hadirajputofficial@gmail.comWhatsapp:03087122922(Team Hadi Lahore)

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)

- 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.



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirainputofficial@gmail.com Whatsapp: 93087122922 (Team Hadi Lahore)

An STL container can not be used to:

Answer (Please select your correct option)

- 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



HADI
VU
PAST
PAPER

MADE BY HADI

Email:hadirajputofficial@gmail.comWhatsapp:03087122922(Team Hadi Lahore)

The copy() algorithm returns an iterator to

Answer (Please select your correct option)

- 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.



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

_____ follow try block to catch the thrown object.

.

Answer (Please select your correct option)

Catch block



Throw block

Main block

Try block



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI
Email: hadi@nuteofficial@gmail.com | <https://t.me/nuteofficial> | <https://www.instagram.com/nuteofficial> | <https://www.facebook.com/nuteofficial> | <https://www.youtube.com/channel/UCv8Z122822> (Team Hadi Lokore)

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



HADI
VU
PAST
PAPER

Answer (Please select your correct option)

- Const data members
- Static data members
- Constructor
- Member initialization list

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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

Answer (Please select your correct option)

Inheritance

Protected inheritance

Multiple inheritance

Private inheritance



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

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)

Base class

Parent class

Super class

Derived class

in my view



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

In abnormal termination our program is terminated _____.

Answer (Please select your correct option)

Manually

Normally

Abnormally

Routinely



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

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)

Parameters, temporary

Parameters, null

Parameters, default

Parameters, zero



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

Which is not the Advantage of inheritance?

Answer (Please select your correct option)

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

- Base
- Derived
- Abstract
- Virtual



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)

variables and data members

functions and classes

classes and exceptions

programs and algorithms



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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)

- data type
- meta type
- virtual type
- pointer type



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

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)

- 2
- 3
- As many as necessary.
- 1



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraibutofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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

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



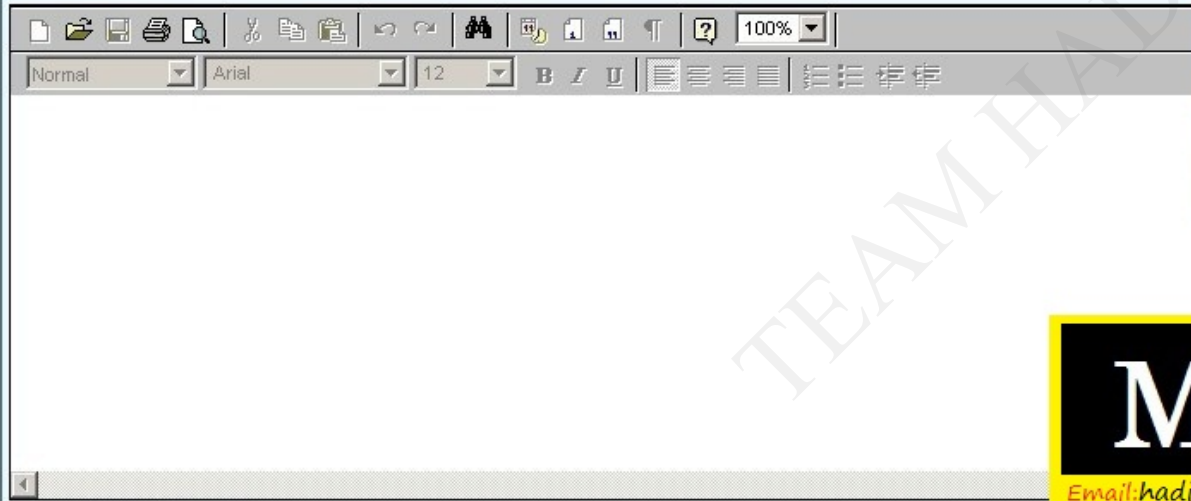
HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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

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



A screenshot of a rich text editor toolbar. It includes icons for file operations (save, print, copy, paste), text editing (undo, redo, bold, italic, underline), alignment (left, center, right, justified), and list creation (bulleted, numbered). The font is set to Arial, size 12, and the zoom level is 100%.



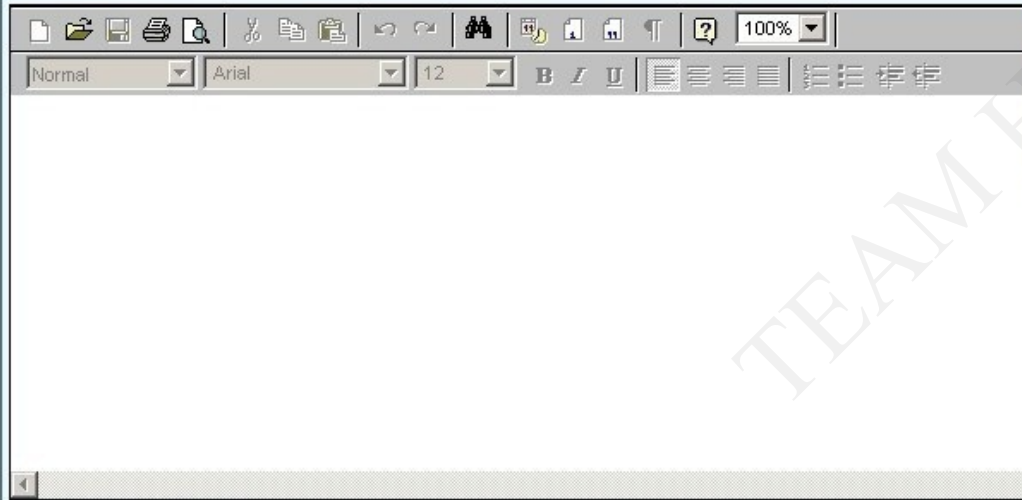
HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Describe two key components of STL?

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



A rich text editor toolbar with various icons for text formatting and editing. The toolbar includes icons for bold, italic, underline, text color, background color, bulleted list, numbered list, link, unlink, and a 100% zoom level. The font is set to Arial and the size is 12.



HADI
VU
PAST
PAPER

MADE BY HADI

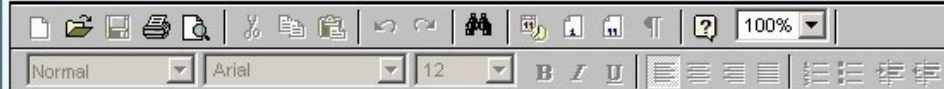
Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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)



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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)



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

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)



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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](#))



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

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)



HADI
VU
PAST
PAPER

MADE BY HADI

Email:hadirajputofficial@gmail.comWhatsapp:03087122922(Team Hadi Lahore)

Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

```
template<typename U>
void Test(U u){
    B <int> b1;
    b1.data = 7;
}
int main(int argc, char *argv[])
```

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



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadi.vu.official@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

```
char i;  
Test();  
system("PAUSE");  
return 0;  
}
```

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Consider the following code segment:

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

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

```
// declaration of overloaded subtraction operator  
  
// declaration of overloaded multiplication operator  
  
};
```

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

```
// Implementation of overloaded subtraction operator
```

```
// Implementation of overloaded multiplication operator
```

Give the declarations and implementations of each overloaded operator.

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122922 (Team Hadi Lahore)

Consider the following code segment:

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

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question No : 51 of 52

Marks: 5 (Budgeted Time 10 Min)

```
class XYZ : public Alphabets {  
public:  
void write(){  
cout << "I am in XYZ class!"<<endl;  
}  
};
```

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



HADI
VU
PAST
PAPER

0
3
0
8
7
1
2
2
9
2
2

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 0308 7122 922 (Team Hadi Lahore)

Question No : 51 of 52

Marks: 5 (Budgeted Time 10 Min)

```
class Shape {  
public:  
virtual void draw()=0;  
};  
  
class Triangle: public Shape{
```

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadirajputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)

Question No : 51 of 52

Marks: 5 (Budgeted Time 10 Min)

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

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



HADI
VU
PAST
PAPER

MADE BY HADI

Email: hadiraiputofficial@gmail.com Whatsapp: 03087122922 (Team Hadi Lahore)