



Virtual University

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CS201
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 function call is "call by reference" for the following function prototype?
`void func (int *);`

Answer (Please select your correct option)

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☐ `func(int &num) ;`

☒ `func(&num) ;`

correct

☐ `func(*num) ;`

☐ `func(num) ;`

Made by: Waqar Siddhu

Question No : 2 of 52

Marks: 1 (Budgeted Time 1 Min)

What is the highest legal index for the following array?
`int arr[4]`

Answer (Please select your correct option)

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☐ 4

☒ 3

correct

☐ 2

☐ 1

Made by: Waqar Siddhu

Question No : 3 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following is the correct way to initialize a character array 'course' with string 'programming'?

Answer (Please select your correct option)

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☐ course[12]="programming";

correct

☐ course[] = ("programming");

☐ course[] = 'programming' ;

☐ course = "programming" ;

Made by: Waqar Siddhu

Question No : 4 of 52

Marks: 1 (Budgeted Time 1 Min)

Using a segment of source code again by adding new functionalities with slight or no modification is termed as _____.

Answer (Please select your correct option)

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☐ code efficiency

☐ code reusability

correct

☐ code modification

☐ code compatibility

Made by: Waqar Siddhu

Question No : 5 of 52

Marks: 1 (Budgeted Time 1 Min)

_____ executes all the lines before error and stops at the line which contains the error.

Answer (Please select your correct option)

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☐ Intrepreter

correct

☐ Compiler

☐ Linker

☐ Debugger

Made by: Waqar Siddhu

Question No : 6 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following values are used in C/C++ to represent true and false?

Answer (Please select your correct option)

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☐ 1 and 0

correct

☐ 1 and -1☐ 11 and 00☐ Any numerical value

Made by: Waqar Siddhu

Question No : 7 of 52

Marks: 1 (Budgeted Time 1 Min)

When break statement is encountered in switch statement, it _____

Answer (Please select your correct option)

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☐ Stops the entire program☐ Stops the execution of current statement☐ Exits from switch statement

correct

☐ Repeats the switch statement

Made by: Waqar Siddhu

Question No : 8 of 52

Marks: 1 (Budgeted Time 1 Min)

What will be the output of this code segment?

```
int arr[6] = {2, 3, 7, 4, 5, 6} ;  
int *ptr1 = &arr[1] ;  
int *ptr2 = &arr[4] ;  
cout << (ptr2 - ptr1) ;
```

Answer (Please select your correct option)

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☐ 3☐ 9☐ 12☐ 2

correct

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Question No : 9 of 52

Marks: 1 (Budgeted Time 1 Min)

In C++, Integer calculation occurs in _____ bytes.

Answer (Please select your correct option)

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☐ 1 byte

☐ 2 bytes

☐ 4 bytes

☐ 8 bytes

correct

Made by: Waqar Siddhu

Question No : 10 of 52

Marks: 1 (Budgeted Time 1 Min)

In windows operating system, function calling is like sending a/an _____ to the object.

Answer (Please select your correct option)

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☐ Error

☐ Message

☐ Request

☐ Object

correct

Made by: Waqar Siddhu

Question No : 11 of 52

Marks: 1 (Budgeted Time 1 Min)

The static data members of a class will be _____.

Answer (Please select your correct option)

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☐ shared by objects

☐ created for each object

☐ initialized within class

☐ initialized within main function

correct

Made by: Waqar Siddhu

Question No : 12 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following option is true about static data members of a class?

Answer (Please select your correct option)

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- ☐ The static data members cannot be private or public
- ☐ The static data members must be private
- ☐ The static variables must be public
- ☐ The static data members can be private or public

CO Made by: Waqar Siddhu

Question No : 13 of 52

Marks: 1 (Budgeted Time 1 Min)

When a variable is defined as static in a class then _____

Answer (Please select your correct option)

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- ☐ Separate copy of this variable is created for each object
- ☐ Only one copy is created for all objects of this class
- ☐ A copy of this variable is created for only static objects
- ☐ No copy is created for the objects of that class

correct

Made by: Waqar Siddhu

Question No : 14 of 52

Marks: 1 (Budgeted Time 1 Min)

The pointer returned by the new operator points to _____ of memory chunks allocated by the new operator.

Answer (Please select your correct option)

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- ☐ Second memory address
- ☐ First memory address
- ☐ Last memory address
- ☐ Last memory address of the previous chunk

correct

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Question No : 15 of 52

Marks: 1 (Budgeted Time 1 Min)

A _____ is considered as a special type of pointer which contains address of a memory location.

Answer (Please select your correct option)

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☐ Function

☐ Structure

☐ Reference

☐ Class

correct

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Question No : 16 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following operator the compiler overloads for objects by default?

Answer (Please select your correct option)

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☐ + operator

☐ - operator

☐ = operator

☐ == operator

correct

Made by: Waqar Siddhu

Question No : 17 of 52

Marks: 1 (Budgeted Time 1 Min)

If C1 and C2 are objects of the same class, what would a user get after compiling the following statement?
C1 = C2;

Answer (Please select your correct option)

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☐ The compiler will generate a syntax error regarding assignment operator not overloaded.

☐ The compiler will execute the statement but it will be a logical error.

☐ A run time error occurs.

☐ The program will execute successfully without any logical error.

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Question No : 18 of 52

Marks: 1 (Budgeted Time 1 Min)

With template function, the compiler automatically detects the _____ and generates _____ using passed data.

Answer (Please select your correct option)

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☐ passed data , a new copy of function

correct

☐ parameters, an old copy of function

☐ old copy of function, parameters

☐ parameters, an new copy of function

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Question No : 19 of 52

Marks: 1 (Budgeted Time 1 Min)

What does STL stand for?

Answer (Please select your correct option)

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☐ Source template library

☐ Standard template library

correct

☐ Stream template library

☐ Standard temporary library

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Question No : 20 of 52

Marks: 1 (Budgeted Time 1 Min)

Templates provide way of abstracting _____ information.

Answer (Please select your correct option)

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☐ type

correct

☐ data

☐ method

☐ access

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Question No : 21 of 52

Marks: 1 (Budgeted Time 1 Min)

The appropriate data type to store the number of rows and columns of the matrix is _____.

Answer (Please select your correct option)

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☐ float

☐ strings

☐ int

☐ char

correct

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Question No : 22 of 52

Marks: 1 (Budgeted Time 1 Min)

Classes defined inside other classes are called _____ classes

Answer (Please select your correct option)

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☐ looped

☐ nested

☐ overloaded

☐ children classes

correct

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Question No : 23 of 52

Marks: 1 (Budgeted Time 1 Min)

_____ data members of a contained object can be accessed from inside of the containing class.

Answer (Please select your correct option)

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☐ Private

☐ Public

☐ Protected

☐ All

correct

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Question No : 24 of 52

Marks: 1 (Budgeted Time 1 Min)

If we write a statement like `s2 = s1;` _____ will be the calling object and _____ will be passed to the `=` operator as an argument.

Answer (Please select your correct option)

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☐ s1, s1

☐ s1, s2

☒ s2, s1

correct

☐ s2, s2

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Question No : 25 of 52

Marks: 1 (Budgeted Time 1 Min)

We can use `cin.peek()` function to _____.

Answer (Please select your correct option)

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☐ See the next character that we are going to get.

correct

☐ Get to the end of the input buffer.

☐ See the first character of input buffer.

☐ See the last character of the current input word.

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Question No : 26 of 52

Marks: 1 (Budgeted Time 1 Min)

The stream insertion and stream extraction operators are already overloaded for _____.

Answer (Please select your correct option)

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☐ User-defined data types

☐ Built-in data types

☒ User-defined and built-in data types

correct

☐ Constants

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Question No : 27 of 52

Marks: 1 (Budgeted Time 1 Min)

The order of destruction of an object is _____.

Answer (Please select your correct option)

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- ☐ same as the construction order.
- ☐ reverse as the construction order.
- ☐ independent of the construction order.
- ☐ same as the order of objects declared.

correct

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Question No : 28 of 52

Marks: 1 (Budgeted Time 1 Min)

A constructor will create a new object with a full copy of the other object, this type of copy is known as _____.

Answer (Please select your correct option)

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- ☐ Deep copy
- ☐ Shallow copy
- ☐ Constructor copy
- ☐ Object copy

correct

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Question No : 29 of 52

Marks: 1 (Budgeted Time 1 Min)

A macro when takes arguments is called _____.

Answer (Please select your correct option)

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- ☐ function
- ☐ procedure
- ☐ parameterized macro
- ☐ simple macro

correct

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Question No : 30 of 52

Marks: 1 (Budgeted Time 1 Min)

Which of the following is NOT a preprocessor directive?

Answer (Please select your correct option)

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☐ #error

☐ #define

☐ #line

☐ #undef

correct

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Question No : 31 of 52

Marks: 1 (Budgeted Time 1 Min)

Static allocation is _____ efficient than the dynamic allocation.

Answer (Please select your correct option)

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☐ less

☐ more

☐ equally

☐ it depends on the situation

correct

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Question No : 32 of 52

Marks: 1 (Budgeted Time 1 Min)

The function free() returns back the allocated memory got through calloc and malloc to _____.

Answer (Please select your correct option)

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☐ stack

☐ heap

☐ free memory store

☐ both to heap and stack

correct

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Question No : 33 of 52

Marks: 1 (Budgeted Time 1 Min)

If constructor contains a return statement in its body then compiler will give _____.

Answer (Please select your correct option)

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- ☐ No error
- ☐ Syntax error
- ☐ Logical error
- ☐ Run time error

correct

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Question No : 34 of 52

Marks: 1 (Budgeted Time 1 Min)

new and delete are also used with _____ and primitive data types as well.

Answer (Please select your correct option)

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- ☐ loops
- ☐ structures, pointers
- ☐ classes, structures
- ☐ constant

correct

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Question No : 35 of 52

Marks: 1 (Budgeted Time 1 Min)

Memory allocated at run time is a system resource and it is the responsibility of _____ to de-allocate the memory.

Answer (Please select your correct option)

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- ☐ System
- ☐ Programmer
- ☐ User of program
- ☐ Operating System

correct

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Question No : 36 of 52

Marks: 1 (Budgeted Time 1 Min)

Friend class of the other class gets _____ access to _____.

Answer (Please select your correct option)

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☐

Partial, data member and member functions.

☐

Read only, data member and member functions.

☐

Complete, data members only.

☐

Complete, all data members and member functions.

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Question No : 37 of 52

Marks: 1 (Budgeted Time 1 Min)

While overloading new and delete operators, we should take care that _____.

Answer (Please select your correct option)

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☐

They should be overloaded for specific types instead of overloading globally.

correct

☐

Both of these operators should not be overloaded in the same program.

☐

We should never overload either of these operators.

☐

They should be not overloaded for specific types instead of overloading globally.

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Question No : 38 of 52

Marks: 1 (Budgeted Time 1 Min)

In case of _____ default mechanism of function calling is call by value.

Answer (Please select your correct option)

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☐

Variable

correct

☐

Array

☐

Heap

☐

List

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Question No : 39 of 52

Marks: 1 (Budgeted Time 1 Min)

A constructor has the same name as that of _____.

Answer (Please select your correct option)

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☐ Variable

☐ Class

correct

☐ Structure

☐ Function

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Question No : 40 of 52

Marks: 1 (Budgeted Time 1 Min)

The destructor for all the objects in the program is automatically called when _____.

Answer (Please select your correct option)

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☐ Memory is dynamically allocated to objects

☐ Objects are used inside functions

☐ Array of objects is declared

☐ Program is terminated

correct

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Question No : 41 of 52

Marks: 2 (Budgeted Time 4 Min)

What will be the value of the given expression after evaluation if $x = 3$ and $y = 2$?

$(++x*++y)-2$

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

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Made by: Waqar Siddhu

Question No : 42 of 52

Marks: 2 (Budgeted Time 4 Min)

When memory is allocated dynamically using new operator within the constructor of class then what is an appropriate place to de-allocate the memory?

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

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Question No : 43 of 52

Marks: 2 (Budgeted Time 4 Min)

How can we initialize an object which is declared as constant data member in another class ?

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

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Question No : 44 of 52

Marks: 2 (Budgeted Time 4 Min)

What happens when we use new and delete operators?

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

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Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

Consider the following code segment. What will be the output of the following code segment?

```
main()
{
char string1[] = "introduction";
char string2[] = "programming";
cout << "String 1 is " << string1 << endl;
```

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

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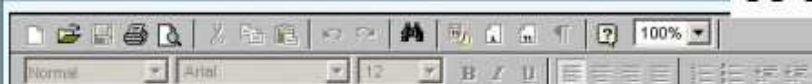
Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

```
char string1[] = "introduction";
char string2[] = "programming";
cout << "String 1 is " << string1 << endl;
cout << "Size of string 1 is " << sizeof(string1) << "bytes" << endl;
cout << "String 2 is " << string2 << endl;
cout << "Size of string 2 is " << sizeof(string2) << "bytes";
```

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

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Question No : 45 of 52

Marks: 3 (Budgeted Time 6 Min)

```
cout << "String 1 is " << string1 << endl;
cout << "Size of string 1 is " << sizeof(string1) << "bytes" << endl;
cout << "String 2 is " << string2 << endl;
cout << "Size of string 2 is " << sizeof(string2) << "bytes";
)
```

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

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Question No : 46 of 52

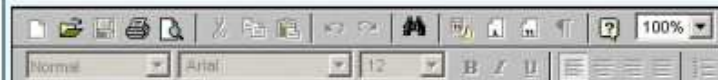
Marks: 3 (Budgeted Time 6 Min)

Is it possible to define the following two functions having the same names, in the same program? Justify your answer.

```
int func(int x, int y);  
int func(int &x, int &y);
```

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

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Question No : 47 of 52

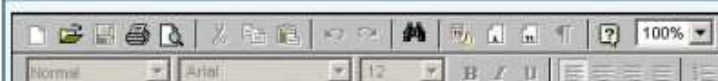
Marks: 3 (Budgeted Time 6 Min)

Determine the output of given program code.

```
#include <iostream.h>  
  
void staticFunc()  
{
```

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

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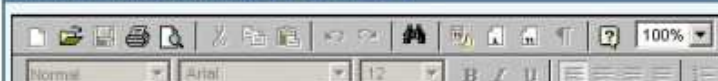
Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
void staticFunc()  
{  
    static int i = 0;  
    cout << i*2 << " ";  
  
    i++;  
}
```

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

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Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
cout << i*2 << " ";  
  
i++;  
}  
  
void nonstaticFunc()
```

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

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Answer area for the first question, showing a rich text editor interface.

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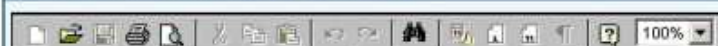
Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
)  
  
void nonstaticFunc()  
{  
    int i = 0;  
    cout << i*2 << " ";
```

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

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Answer area for the second question, showing a rich text editor interface.

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Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
{  
    int i = 0;  
    cout << i*2 << " ";  
  
    i++;  
}
```

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

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Answer area for the third question, showing a rich text editor interface.

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Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
    i++;  
}  
  
main()  
{
```

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

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Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
main()  
{  
    for(int j=0; j<3; j++)  
    {  
        staticFunc();  
        nonstaticFunc();  
    }  
}
```

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

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Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
    staticFunc();  
    nonstaticFunc();  
}
```

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

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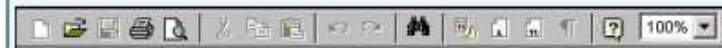
Question No : 47 of 52

Marks: 3 (Budgeted Time 6 Min)

```
nonstaticFunc();  
  
}  
  
return 0;  
}
```

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

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Question No : 48 of 52

Marks: 3 (Budgeted Time 6 Min)

Given lines of code are three important functions of a class Matrix, describe each in one line
Matrix(int=0, int=0);
Matrix(const Matrix &);
~Matrix();

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

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Question No : 49 of 52

Marks: 5 (Budgeted Time 10 Min)

Write a program that defines a Template function named Square () which finds the square of a number and then return it. Define one variable of type **float** in main function and then call Square function on that. Program output should look like this:

Enter a float value to find its Square: 12.3
Square of float number is: 151.29

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

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

Let suppose

```
class String{  
private:  
    char *str ;  
public:
```

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

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Question No : 50 of 52

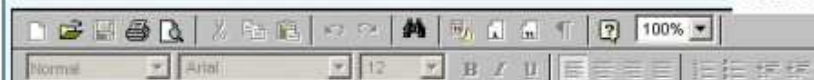
Marks: 5 (Budgeted Time 10 Min)

Let suppose

```
class String{  
private:  
    char *str ;  
public:
```

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

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

```
public:  
    void operator = (const String &s){  
        delete str;  
        str = new char[strlen(s.str)+1];  
        strcpy(str, s.str);  
    }
```

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

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

```
}  
);  
main()  
{  
    String s, *sptr ;  
    sptr=&s;  
    .....
```

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

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

```
>string s, *sptr ;  
sptr=&s;  
.....  
s = *sptr  
.....  
)
```

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

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

```
s = *sptr  
.....  
)
```

Bad coding practice has been adopted here, identify and describe it in words. Also write correct code for assignment operator.

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

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Question No : 50 of 52

Marks: 5 (Budgeted Time 10 Min)

```
void main()
{
    .....
}
```

Bad coding practice has been adopted here, identify and describe it in words. Also write correct code for assignment operator.

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

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Question No : 51 of 52

Marks: 5 (Budgeted Time 10 Min)

Write a program which declares and initializes an integer array of 10 elements and then using a pointer, displays the array elements in reverse order.

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

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Question No : 52 of 52

Marks: 5 (Budgeted Time 10 Min)

Write a small program which defines a user-defined manipulator named Octal. This manipulator should convert and display the decimal number into octal form. In the main function, You have to take a decimal number as an input from the user and then by using the user-defined manipulator display the number in octal form.

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

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Rich text editor toolbar with icons for Bold, Italic, Underline, Text Color, Background Color, Bulleted List, Numbered List, Indent, Outdent, Link, Unlink, and a 100% zoom level. The text area is empty.

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