

STUDENT ID:.....

STUDENT NAME:.....

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Questions	Marks	Students scored
Question 1	(10 Marks)	
Question 2	(10 Marks)	
Question 3	(10 Marks)	
Question 4	(10 Marks)	
Total	(40 Marks)	

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**Question 1: (5 Marks)**

Put your answers of question 1 (**multiple choice questions**) in the following table:

Question	Answer
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

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**Question 1: Multiple Choice(10 Marks)**

1. Which of the following is correct regarding constructor?

- [A] class name and constructor name is same  
[B] constructor does not return value  
[C] constructor has return type  
[D] Both A and B are correct.  
[E] All are correct.

2. Which of the following is a return type?

- A] void [B] int [C] double  
[D] All of the above [E] None of the above

3. What will be used when terminating a structure?

- A] : [B] } [C] ; [D] ;;

4. What is the output of the following code?

```
#include <iostream>
#include <string>
using namespace std;
main() {
    int a[] = {10, 20, 30};

    cout<<a[2]+1;
}
```

- [A] 10 [B] 20 [C] 31 [D] 21

5. Which of the following correctly declares an array?

- [i] int array[]={12,14,15,16};  
[ii] int array[4]={12,14,15,16};  
[iii] array={12,14,15,16};  
[iv] array[]=(12,14,15,16);

- [A] i and iii [B] ii and iii [C] i and ii [D] iv

6. #include<iostream>

using namespace std;

int main ()

{

int array[] = {0, 2, 4, 6, 7, 5, 3};

int n, result = 0;

for (n = 0; n < 6; n++)

result += array[n+1];

cout << result;

return 0;

7. #include <iostream>

using namespace std;

int variable()

{

int x=2;

return x;

}

int main()

{

switch(variable())

{

case 1 :

cout << "Hi" << endl;

break;

default :

cout << "Hello" << endl;

}return 0;

}

- [A] Hello [B] Hi [C] HelloHi [D] Compile error

8. Which of the following is a valid class declaration?

[A] class A { public: int x; };

[B] class B { }

[C] public class A { }

[D] object A { int x; };

9. What is the output of this program?

#include

using namespace std;

int main()

{

int a;

a = 5 + 3 \* 5;

cout << a;

return 0;

}

- [A] 35 [B] 20 [C] 25 [D] 30

10. What is the index number of the last element of an array with 9 elements?

- [A] 9 [B] 8 [C] 0 [D] Programmer-defined

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}  
[A] 27 [B] 25 [C] 28 [D] 17

**Question 2:**

Question: 2(a) (3 Marks)

Give the output for the following questions when the value of n is 15

```
#include <iostream>
using namespace std;
int main()
{
    int n, sum = 0;
    cout << "Enter a positive integer: ";
    cin >> n;

    for (int i = 1; i <= n; ++i) {
        sum += i;
    }

    cout << "Sum = " << sum;
    return 0;
}
```

Output	120
--------	-----

Question: 2(b) (3 Marks)

```
#include <iostream>
#include <string>

using namespace std;

int main() {
    int a[] = { 2001, 2005, 3050, 1000};
    cout << a[0+1] << endl;
    cout << a[0] << endl;
    cout << a[3] << endl;
    return 0;
}
```

Output	2005 2001 1000
--------	----------------------

Question: 2(c) (4 Marks)

What would be printed from the following C++ program?

```
#include<iostream>
using namespace std;
int main(){
    int arr[5]={1,3,5,7,9};
    for(int i=0;i<5;i++) //output arr array
        cout<<arr[i]*arr[i]<<"\t";
    return 0;
}
```

Output	1 9 25 49 81
--------	--------------

**Question 3:**

Question: 3(a) (2 Marks)

Create an integer array “Nums” of size 5.

```
int Nums[5];
```

Question: 3(b) (3 Marks)

Put the values 5, 1, 3, 7, 9 in the array “Nums”.  
Nums[0]=5;  
n

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**Question: 3(c)**

**(5 Marks)**

Find the sum of all the numbers in “Nums” using a for loop. The loop should print 25.

Int s=0;

```
for(int i=0; i<5; i++){
    if (i<4)
        s+=nums[i];
    else
        s+=nums[i];
    cout<<s;
}
```

**Question 4:**

**(10 Marks)**

```
#include <iostream>
using namespace std;
```

```
class Employee
{
private:
    int Studentid[5];
    string Studentname[5];

public:
    Employee();
    Employee(int studentid[], string
studentname[]);
    void display();
};
```

```
Employee::Employee()
{
    for(int i=0; i<5; i++)
    {
```

```
        Studentid[i]=0;
        Studentname[i]="";
    }
```

**Employee:: Employee(int studentid[], string studentname[])**

```
{
    for(int i=0; i<5; i++)
    {
```

```
        Studentid[i]=studentid[i];
        Studentname[i]=studentname[i];
    }
```

```
}
```

```
}
```

```
void Employee::display()
{
```

```
    for(int i=0; i<5; i++)
    {
```

```
        cout<<"The student id is "<<Studentid[i]<<endl;
```

```
        cout<<"The student name is"<<Studentname[i]<<endl;
```

```
    }
```

```
}
```

```
int main()
{
```

```
    int studentid[]={1234,2345,4567,6789,1256};
    string studentname[]{"Mohammed",
"ahmed","Sohail","Abubakker","Omer"};
    Employee emp,emp1(studentid,studentname);
```

```
    emp1.display();
```

```
}
```

From the above program answer the following questions

1. What is the class name of the above program?

\_\_\_\_\_ Employee \_\_\_\_\_ (1 marks)

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<pre>}  2. what are the attributes in the above program?  _____ Studentid _____(0.5 Marks)  _____ Studentname _____(0.5 Marks)  2. How many constructors are there?  _____2_____ (1 marks)  3. what is the size of the array?  _____5_____ (1 Marks)  4. what is the method name?  _____display_____ (1 Marks)  5. what is the objects name?  _____ emp,emp1_____ (1 Marks)  6. what is the output for the above program? (4 Marks)</pre>	<p><b>The student id is 1234</b></p> <p><b>The student name is Mohammed</b></p> <p>...</p> <p><b>The student id is 1256</b></p> <p><b>The student name is Omer</b></p>
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CSC 201-PROGRAMMING IN C++  
COMPUTER SCIENCE DEPARTMENT  
COLLEGE OF COMPUTER AND INFORMATION SCIENCE

FINAL EXAM  
DURATION: 2 HOURS  
40 MARKS

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