king Saud University
College of Computer and
Information Sciences
Computer science department

Answer Sheet
(Dr Borhen)

Midterm 2 Spring 2017

Cs201-Programming in C++

20 Marks

Student Name:

Student ID:

A. Multiple Choice(5 Marks)

1. Which of the following will return a value?
A] void
[B] int
[C] double
[D] Both B and C are incorrect.
[E] All are correct.

2. What is the output of the following Program?
```cpp
#include <iostream>
#include<cmath>
using namespace std;
int main()
{
  int x=5,y;

  y=sqrt(x);
  cout<<y;
}
```
A] 2.5
[B] 5
[C] 2
[D] No Answer

3. What are mandatory parts in function declaration?
[A] return type,function name
[B] return type,function name,parameters
[C] both a and b
[D]none of the mentioned

4. Where does the execution of the program starts?
[A] user-defined function
[B] main function
[C] void function
[D] none of the mentioned

5. What is the output of the following code?

```cpp
#include<iostream>
main(){
char  x='b';
switch(x)
{
case 'a':
```
```cpp
cout<<"case a"<<endl;break;
case 'b':
        cout<<"case b"<<endl;break;
        default:
        cout<<"wrong input"<<endl;
}  return 0;  }
```

[A] case a   [B] case b   [C] case a case b
[D] wrong input

B. True or False(5 Marks)

1. Functions cannot return more than one value at a time

A.   True
B.   False

2. Function can be reused in the code?

A. True

B. False

3. In C++, x++ is equivalent to x = x + 2;

A. True

B. False

4. Struct is the key word to declare the structure.

A. True

B. False

5. Structures cannot be called in other structures

A. True

B. False

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C. Questions (Marks 10)	

(5 Marks)
 1. Write a Function in C++ to add, subtract, multiply and divide?
 	
 void add();
 int subtract();
 int multiply(int,int);
 void divide(int,int);
	``cpp
	# include <iostream>
	using namespace std;
	Void add (int, int);
	int substract(int, int);
	int multiply (int, int);
	Void divide (int, int);
	
	int main ( )
	{ int a, b;
	   Cout << "Please, Enter the value of a:";
	   cin >> a;
	   Cout << "Please, enter the value of b:";
	   cin >> b;
	   add (a, b);
	   Cout << "The substract a-b is:"<<
	         Substract (a,b) << endl;
	   Cout << "Their multiplication is"<<
	         multiply (a,b) << endl;
	   divide (a,b);
	   return 0;
	}
	void add (int a, int b)
	  { cout << "Their sum is "<< a+b<<endl;
	  }
	int substract (int a, int b)
	  { return (a-b);
	  }
	int multiply (int a, int b)
	  { return (a*b); }
	void divide (int a, int b)
	  { cout<< Their division is "<< a/b <<endl;}
	``

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(5 Marks)

2. Write a c++ program to create a StudentRecord using structure and give student id and grades. Create two object and give the two id and grades?

Output:

The Student name is Mohammed
The grade is 2000
The Student name is Ahmed
The grade is 1100

```cpp
#include <iostream>
using namespace std;
struct StudentRecord
{ char name[10];
  int id;
  char grade;
};
StudentRecord Get_data(StudentRecord in_student);

int main()
{ StudentRecord student1;
  student1 = Get_data(student1);
  cout << student1.name << ", " <<
       student1.id << ", " << student1.
       grade << endl;
  return 0;
}
StudentRecord Get_data(StudentRecord in_student)
{ cout << "Enter Name:";
  cin >> in_student.name;
  cout << "Enter ID:";
  cin >> in_student.id;
  cout << "Enter Grade:";
  cin >> in_student.grade;
  return (in_student);
}
```