

University of Jordan
King Abdullah School of Information Technology
Department of Computer Science
Computer Skills II (Scientific Faculties) / Midterm Exam

Student Name: _____ Section No.: _____
 Student ID: _____ Instructor.: _____

Note: Answer question 1 here.

	Syntax Error	Correction
1	namespace std ;	using namespace std ;
2	Void main ();	void main ()
3	Char z;	char z;
4	if a>=b	if (a>=b)
5	for(int i=0;i<5;++)	for(int i=0;i<5;i++)
6	cin>>number	cin>>number ;
7	Else	else
8	<<number<<" Is Odd"endl;	<<number<<" Is Odd"<<endl;
9	return 0;	It should be removed because of <u>void main()</u>
10	No end for main function	Place } at the end of main function

**Q1: Find and correct syntax error(s) in the following program.
(10 points)**

```
#include <iostream>
namespace std ;
void main ();
{
    int a,b,max;
    int number,x;
    double av;
    Char z;

    cout<<"Enter Two Integer Number:";
    cin>>a>>b;

    if a>=b
        max=a;
    else
        max=b;

    cout<<"Max="<<max<<endl;
    for(int i=0;i<5;++i)
    {
        cout<<"Enter Integer Number:";
        cin>>number
        if(number%2==0)
            cout<<"Number "<<number<<" Is Even"<<endl;
        Else
            cout<<"Number "<<number<<" Is Odd"endl;
    }
    return 0;
```

Q2: What is the Output of the following Code Segments? (10 points)	
<pre>void main() { int z , y; double x; string str = ""; char var; cin>>z>>x; cin.get(var); cin>>y; getline(cin,str); x += (str != "Computer" ? 100 : 10); cout<<"x is:"<<x<<"\n"<<"y is:"<<y<<"\n" <<"z is:"<<z<<"\n"<<"w is:"<<var<<"\n" <<"str is:"<<str<<"\n"; }</pre>	<p><u>Assume the input as follows:</u></p> <p>34 2.4 19 Computer</p> <p><u>Stored Value For Each Variable</u></p> <p>x = 102.4 y = 19 z = 34 w = space str = Empty String</p>
<pre>void main() { int x = 18 , y = 7 ; cout<<y<<" "<<x--<<'\\n'; while(x > 12) { switch(x) { case 17: y++; case 14: cout<<(y % 5)<<" "; case 12: cout<<--x<<" "; break; default: y += x/2; break; } cout<<x<<"\\n"; x -= 5; } }</pre>	<p><u>Output</u></p> <p>7 18 3 16 16</p>

Q3: Write a C++ code to read a group of integer values and calculate the average of only even ones. The input should terminate at the time of input for a negative integer. (5 points)

```
#include<iostream>
using namespace std;
void main()
{
#include<iostream>
using namespace std;
void main()
{
    int val, counter = 0;
    double sum = 0 , avg;
    cout<<"Enter a value: ";
    cin>>val;
    while(val >= 0)
    {
        if(val%2 == 0){
            sum += val;
            counter++;
        }
        cout<<"Enter a value: ";
        cin>>val;
    }
    if(counter != 0)
    {
        avg = sum / counter;
        cout<<avg<<"\n";
    }
}
```

→1 mark

→1 mark

→1 mark

→1 mark

→1 mark

Q4: Write a C++ code to input an integer value (assume its name is N) and calculate the summation for the first N terms of the following series: (Note: Don't use Pow function in your solution) (5 points)

$$1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \frac{1}{16} + \dots$$

```
#include<iostream>
```

```
using namespace std;
```

```
void main()
```

```
{
```

```
double sum = 0;
```

```
int N, x = 1;
```

→1 mark

```
cout<<"Enter Number of terms:";
```

```
cin>>N;
```

→1 mark

```
for(int i = 1; i <= N ; i++)
```

→1 mark

```
{
```

```
sum += 1 / x;
```

```
x *= 2;
```

→1 mark

```
}
```

```
cout<<sum<<"\n";
```

→1 mark

```
}
```