

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	#include <iostream>;	#include <iostream>
2	Using namespace ;	using namespace std;
3	doubl av;	double av;
4	Else without if	Remove ; from end of if
5	<u>For</u> (int i=0;i<5;i+)	<u>for</u> (int i=0;i<5;i+)
6	For(int i=0;i<5; <u>i+</u>)	For(int i=0;i<5; <u>i++</u>)
7	cin<<number;	cin>>number;
8	<<number" Is Odd"<<endl;	<<number<<" Is Odd"<<endl;
9	Main function with no close brace	Add another } to the end of program
10	number variable is not declared.	Add the following statement: int number;

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

```
#include <iostream>
using namespace ;
void main ()
{
    int a,b,max;
    int x;
    doubl 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;
        }
    }
}
```

Q2: What is the Output of the following Code Segments? (10 points)	
<pre> void main() { int x , y; double z; string str = ""; char w; cin>>x>>z; cin.get(w); cin>>y; getline(cin,str); x += (str > "Hello" ? 10 : 100); cout<<"x is:"<<x<<"\n"<<"y is:"<<y<<"\n" <<"z is:"<<z<<"\n"<<"w is:"<<w<<"\n" <<"str is:"<<str<<"\n"; } </pre>	<p><u>Assume the input as follows:</u></p> <p>12 3.9 20 Hello</p>
	<p><u>Stored Value For Each Variable</u></p> <p>x = 112 y = 20 z = 3.9 w = space str = Empty String</p>
	<p><u>Output</u></p> <p>12 4 1 12 12</p>
<pre> void main() { int j = 12 , i = 4 ; cout<<j--<<" "<<i<<"\n"; while(j > 9) { switch(j) { case 10: j++; case 11: cout<<(j % 5)<<" "; case 12: cout<<++j<<" "; break; default: j += i/2; break; } cout<<j<<"\n"; j -= 5; } } </pre>	

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;
```

→ 1 mark

```
cout<<"Enter a value: ";
cin>>val;
```

→ 1 mark

```
while(val >= 0) → 1 mark
```

```
{
    if(val%2 == 0){
        sum += val;
        counter++;
    }
```

→ 1 mark

```
    cout<<"Enter a value: ";
    cin>>val;
```

→ 1 mark

```
}
if(counter != 0)
{
    avg = sum / counter;
    cout<<avg<<"\n";
}
```

→ 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

```
}
```