

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	using name std ;	using namespace std ;
2	cin>>a,b;	cin>>a>>b;
3	max variable is undeclared	Add the following statement: int max;
4	cout<<" <u>Max</u> <<max<<endl;	cout<<" <u>Max=</u> <<max<<endl;
5	for(<u>i=0</u> ;i<5;i++)	for(<u>int i=0</u> ;i<5;i++)
6	cout>>"Enter Integer Number:";	cout<<"Enter Integer Number:";
7	If(number%2 <u>=</u> 0)	If(number%2 <u>==</u> 0)
8	If(number%2=0); causes else statement being without if	if(number%2=0) [remove ; from the end of if statement]
9	<<number<<" Is Even"<< <u>end</u> ;	<<number<<" Is Even"<< <u>endl</u> ;
10	return 0;	It should be removed because of <u>void main()</u>

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

```
#include <iostream>
using name std ;
void main ()
{
    int a,b;
    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( 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 x , y; double z; string str = ""; char w; cin>>x>>z; cin.get(w); cin>>y; getline(cin,str); y += (str > "GOOD" ? 20 : 50); 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>56 13.9 29 Good</p> <p><u>Stored Value For Each Variable</u></p> <p>x = 56 y = 79 z = 13.9 w = space str = Empty String</p>
<pre>void main() { int k1 = 14 , k2 = 6 ; cout<<k2--<<" "<<k1<<"\n"; while(k1 > 11) { switch(k1) { case 14: k1++; case 13: cout<<(k2 % 5)<<" "; case 12: cout<<++k2<<" "; break; default: k2 += k1/2; break; } cout<<k1<<"\n"; k1 -= 5; } }</pre>	<p><u>Output</u></p> <p>6 14 0 6 15</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

```
}
```