


Philadelphia University Faculty of Engineering Department of Computer Engineering		Date:- 06/05/2015 Allowed time:- 50 minutes
Programming Language (630263)		Second Exam
Student Name: -		ID: -
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Lecture Time: <input type="checkbox"/> ح ٨ 08:10 – 09:00 <input type="checkbox"/> ح ٩ 10:10 – 11:00 <input type="checkbox"/> ح ١٢ 12:10 – 13:00 <input type="checkbox"/> ن ١٢ 12:45 – 14:15 <input type="checkbox"/> ن ١٤ 14:15 – 15:45		

Question 1: Mark the following statements as true or false.

1- case condition can contain logical expression.	F
2- break is required after each case.	F
3- while statement will execute at least once.	F
4- The array index starts at 1.	F
5- In <code>int Arr[17]</code> The index of the last element in Arr is 17	F

Question2: Write instructions to define an array of 10 elements, then use for statement to initialize each element by value i^2-5 , where i is the index of the array.

```
int Arr[10];
for(int i=0;i<10;i++)
{
    Arr[i]=i*i+5
}
```

Question 3: Find the errors (logical or syntax) then correct them

code	correction
<pre>switch (n <= 2) { case 0: cout<< "Low" <<endl; break; case 1: cout<< "Mid" <<endl; break; case 2: cout<< "High" <<endl; break; } }</pre>	<pre>switch (n <= 2) { case 0: cout<< "Low" <<endl; break; case 1: cout<< "Mid" <<endl; break; }</pre>
<pre>int x=1; while(x<10) cout<<x<<"\t"<<x*x<<endl; x++;</pre>	<pre>Infinite loop int x=1; while(x<10){ cout<<x<<"\t"<<x*x<<endl; x++;}</pre>
<pre>double Arr[10]; for(int i=0;i<=10;i++) cout<<Arr[i]<<endl;</pre>	<pre>double Arr[10]; for(int i=0;i<10;i++) cout<<Arr[i]<<endl;</pre>

Question 4:What is the output of the following codes.

<pre>for (i = 1; i <= 4; i++) { num = num + 10 * (i - 1); cout<<num<< " "; } </pre>	<p style="text-align: center;">0 10 30 60</p>
<pre>int x = 5, y = 50; do { x = x + 10; cout<< x<<endl; }while (x < y); </pre>	<p style="text-align: center;">15 25 35 45 55</p>
<pre>int num = 13; while (num>= 0) { if (num % 5 == 0) break; cout<<num<< " "; num = num - 4; } </pre>	<p style="text-align: center;">13 9</p>
<pre>int alpha=4; switch (alpha) { case 1: case 2: alpha = alpha + 2; cout<<alpha<<endl; break; case 4: alpha++; cout<<alpha<<endl; case 5: alpha = 2 * alpha; cout<<alpha<<endl; break; case 6: alpha = alpha + 5; cout<<alpha<<endl; default: alpha--; cout<<alpha<<endl; } </pre>	<p style="text-align: center;">5 10</p>
<pre>int list[5]; for (inti = 0; i < 5; i++) { list[i] = 2 * i + 5; if (i % 2 == 0) list[i] = list[i] - 3; } for (inti = 4; i >=0; i-=3) { cout<<list[i]<<endl; } </pre>	<p style="text-align: center;">10 7</p>

Question 5: A user measure and record temperatures values in Celsius for a month. Write a program that store the temperatures values in an array then the program should define another array in which he will store the temperatures value in Fahrenheit

$$f = \frac{9}{5}c + 32$$

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

int main()
{
    double c_temp[30],f_temp[30];
    for(int i=0;i<30;i++)
    {
        cin>>c_temp[i];
    }

    for(int i=0;i<30;i++)
    {
        f_temp[i]=9/5*c_temp[i]+32;
    }

    return 0;
}
```