



Dept. of Computer Engineering
Second Exam, First Semester: 2013/2014

Course Title: Programming Language	Date: 29/12/2013
Course No: (630263)	Time Allowed: 50 minutes
Instructors: Dr. Ali Khawaldeh, Eng. Anis Nazer, Eng. Sultan Rushdan	No. of Pages: 3

Please Choose your section:

Instructor: Dr. Ali Khawaldeh Eng. Anis Nazer: Eng. Sultan Rushdan
Lecture time: 10:10 ح ث خ 13:10 ح ث خ 11:15 ن ر 14:15 ن ر

Question 1: (5 points)

Indicate whether the following statements is true or false

Statement	True/False
A "switch" statement must contain a default case.	
Any "while" statement can be written using a "for" statement.	
The body of the loop "for (x = 3; x <= 15 ; x++)" will be repeated 13 times	
To display the fifth element in an array "a" we use cout<<a[5]<<endl;	
To declare an integer array "p" of 100 elements, the programmer writes p[100];	

Question 2: (4 points)

Answer the following questions

Task	Answer
a) Rewrite the following using a switch statement: <pre>if (term == 1) cout << "First semester" << endl; else if (term == 2) cout << "Second semester" << endl; else if (term == 3) cout << "Summer semester" << endl; else cout << "Error" << endl;</pre>	
b) Indicate the error in the following code and rewrite the correct code: <pre>for (int c=2; c > 0 ; c++) cout << "Hello" << endl;</pre>	
c) write a loop to display the multiples of 3 that are between 5 and 35	

Question 3:

(6 points)

	Code	Output
a)	<pre>int count = 1; int y = 10; while (count < 10) { y = y - 1; count++; } cout << " y = " << y << " and count = " << count << endl;</pre>	
b)	<pre>int x = 4 , z=0; do { z = z + 7; cout << z << " "; } while (((z - x)% 3) != 0); cout << endl;</pre>	
c)	<pre>int r, c, s = 0; for (r = 2 ; r < 4 ; r++) { for (c = 1; c < 3 ; c++) { s = s + r + c; } } cout << s;</pre>	
d)	<pre>int G[10] = { 9 , 3 , 1 , -2 , 7 , 4, -3 }; double S = 0; for (int i=0; i < 10 ; i+=2) S += G[i]; cout << S;</pre>	
e)	<pre>int x = 1; int y = 0; while (y <= 10) { if (x % 3 != 0) y = y + 3; else y = y - 2; x++; } cout << y;</pre>	
f)	<pre>int Arr[5]; for (int i = 0; i < 5; i++) Arr[i] = 2 * i - 3; for (int i = 4; i >= 0; i--) cout << Arr[i] << " "; cout << endl;</pre>	

Question 4:**(5 points)**

Write a program that reads 20 real numbers and stores them in an array, the program displays:

- the average of the numbers
- the following sum, where m is the average of the numbers and x_i is the number

$$S = \sum_{i=1}^{20} (x_i - m)^2 = (x_1 - m)^2 + (x_2 - m)^2 + \dots + (x_{20} - m)^2$$

GOOD LUCK