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| Philadelphia University Faculty of Engineering Department of Computer Engineering |  | Date:- 23/05/2017 Allowed time:- 50 Minutes |
| Programming Language (630263) Second Exam | | |
| Student Name: - | | ID: - |
| Instructor:- | <input type="checkbox"/> Dr. Nasser Halasa | <input type="checkbox"/> Dr. Ali Al-Khawaldeh |
| | | <input type="checkbox"/> Eng. Sultan Al-Rushdan |
| Lecture Time:- | <input type="checkbox"/> 10:10-11:10 حتم | <input type="checkbox"/> 11:10-12:10 حتم |
| | <input type="checkbox"/> 15:10-16:10 حتم | <input type="checkbox"/> 12:10-13:10 حتم |
| | <input type="checkbox"/> 12:45-14:15 نر | <input type="checkbox"/> 14:15-15:45 نر |

Question 1: choose the correct answer for the following questions. 5 Points.

- 1- Which of the following correctly declares and initializes an array of 4 rows and 3 columns .
- a. `int alpha[4][3] = {{0,1,2} {1,2,3} {2,3,4} {3,4,5}};`
b. `int alpha[4][3] = {0,1,2; 1,2,3; 2,3,4; 3,4,5};`
c. `int alpha[4][3] = {0,1,2: 1,2,3: 2,3,4: 3,4,5};`
d. `int alpha[4][3] = {{0,1,2}, {1,2,3}, {2,3,4}, {3,4,5}};`
- 2- Which of the following correctly declares an array?
- a) `int array[10];` b) `int array;` c) `array{10};` d) `array int[10];`
- 3- A is an Array of 15 elements Which of the followings will correctly display the first 5 elements.
- A) `for(int i=0;i<4;i++)`
`cout<<A[i];`
- B) `for(int i=0;i<=4;i++)`
`cout<<A[i];`
- C) `for(int i=1;i<5;i++)`
`cout<<A[i];`
- D) `for(int i=0;i<=5;i++)`
`cout<<A[i];`
- 4- Which keyword is used to end the current loop?
- A. break B. continue C. return D. None of the mentioned
- 5- How many times "hello" will be printed in the below code?
- ```
int i = 0;
do {
 i++;
 cout<<"hello\n";
} while (i < 3);
```
- A. 2                      B. 3                      C. 4                      D. 1

**Question 2: Write C++ statement(s) that accomplish the following. 2 Points.**

|                                                                                                                     |  |
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| Write a for statement that displays the even numbers between 1 and 20.                                              |  |
| Declare an array of 19 elements then initialize it with the following numbers using for loop 1 , 3 , 5 , 7 ,9,..... |  |

**Question 3:- What is the output of the following code segments.**

**5 Points.**

|                                                                                                                                                       |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <pre>int n = 10 , y = 0; while (n &gt;= 0) {     y = y + 2;     n--; } cout&lt;&lt;" n = "&lt;&lt; n &lt;&lt;"and y = "&lt;&lt; y &lt;&lt;endl;</pre> |  |
| <pre>int A [5]={0}; A[1]=7; A[2]=5; A[3]=-2; for (int i = 0; i &lt; 5 ; i+=2)     cout &lt;&lt; A[i] &lt;&lt;" "; cout &lt;&lt; endl;</pre>           |  |
| <pre>int sum=0; int i; for(i=9;i&gt;2;i-=2) {     sum+=i; } cout&lt;&lt;sum&lt;&lt;" "&lt;&lt; i &lt;&lt; endl;</pre>                                 |  |
| <pre>int temp[3][3]={{1,2,3},{4,5,6},{7,8,9}}; for (int i = 0 ; i &lt; 3 ; i++) {     cout &lt;&lt; temp[i][2-i] &lt;&lt;endl; }</pre>                |  |
| <pre>int x=9; float a=1.1 do {     cout&lt;&lt; x * a &lt;&lt; endl;     x++; } while( x &lt; 5 ); cout&lt;&lt; x &lt;&lt;endl;</pre>                 |  |

**Question 4: Find the errors(syntax or semantics) in the following code segments and correct them.**

**3 Points.**

|                                                                                                                   |  |
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| <pre>int G[6] = {3,9,1,-2,7,4,-3}; int S = 0; for ( i=0; i &lt; 6 ; i++ )     S += G[ i ]; cout &lt;&lt; S;</pre> |  |
| <pre>int x = 1 , y = 0; do     y = x + 2;     x++; while ( y &lt;= 10 ) cout &lt;&lt; y;</pre>                    |  |
| <pre>int j=1; while (j &lt;= 10)     cout &lt;&lt; "Hello" &lt;&lt; endl</pre>                                    |  |

**Question 5: Write a program that perform the followings:**

**5 Points.**

- 1- Define an array of 20 real elements**
- 2- Ask the user to enter 20 number and store them in the array**
- 3- Find the average of the numbers stored in the array**
- 4- Count the numbers Greater than the average.**
- 5- Display the results.**