Benha University   **Semester ❷ (First Year)**
Benha Faculty of Engineering   *Computer Programming (b)-(E1124)*
Electrical Engineering Department   **Semester 2020- 2021**

Midterm Written Examination.   *Time all: 30 Min.*
     18/5/2021   *A*

Answer the following questions

	a)	b)	c)	d)
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				

1. Which of the following correctly declares an array?
   a) int array[10];
   b) int array;
   c) array{10};
   d) array array[10];

2. What is the index number of the last element of an array with 9 elements?
   a) 9
   b) 8
   c) 0
   d) Programmer-defined

3. What is the correct definition of an array?
   a) An array is a series of elements of the same type in contiguous memory locations
   b) An array is a series of element
   c) An array is a series of elements of the same type placed in non-contiguous memory locations
   d) An array is an element of the different type

4. Which of the following accesses the seventh element stored in array?
   a) array[6];
   b) array[7];
   c) array(7);
   d) array;

5. What will be the output of the following C++ code?
   ```cpp
   #include <stdio.h>
   #include<iostream>
   using namespace std;
   int array1[] = {1200, 200, 2300, 1230, 1543};
   int array2[] = {12, 14, 16, 18, 20};
   int temp, result = 0;
   int main()
   ```

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```cpp
    {
      for (temp = 0; temp < 5; temp++)
      {
         result += array1[temp];
      }
      for (temp = 0; temp < 4; temp++)
      {
         result += array2[temp];
      }
      cout << result;
      return 0;
    }
```

a) 6553

b) 6533

c) 6522

d) 12200

6. What will be the output of the following
   C++ code?

```cpp
    #include <stdio.h>
    #include<iostream>
    using namespace std;
    int main ()
    {
      int array[] = {0, 2, 4, 6, 7, 5, 3};
      int n, result = 0;
      for (n = 0; n < 8; n++)
      {
         result += array[n];
      }
      cout << result;
      return 0;
    }
```

a) 25

b) 26

c) 27

d) 21

7. What will be the output of the following
   C++ code?

```cpp
    #include <stdio.h>
```

```cpp
    #include<iostream>
    using namespace std;
    int main()
    {
      int a = 5, b = 10, c = 15;
      int arr[3] = {&a, &b, &c};
      cout << *arr[*arr[1] - 8];
      return 0;
    }
```

a) 15

b) 18

c) garbage value

d) compile time error

8. What will be the output of the following
   C++ code?

```cpp
    #   include <stdio.h>
    #   include <iostream>
    using namespace std;
    int main()
    }
      char str[5] = "ABC";
      cout << str[3];
      cout << str;
      return 0;
```

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{
a) ABC
b) ABCD
c) AB
d) AC

9. The operator used for dereferencing or indirection is ____
   a) *
   b) &
   c) ->
   d) –>>

10. Choose the right option.
    string* x, y;
    a) x is a pointer to a string, y is a string
    b) y is a pointer to a string, x is a string
    c) both x and y are pointers to string types
    d) y is a pointer to a string

11. Which of the following is illegal?
    a) int *ip;
    b) string s, *sp = 0;
    c) int i; double* dp = &i;
    d) int *pi = 0;

12. What will be the output of the following C++ code?
    ```
    #include <iostream>
    using namespace std;
    int main()
    {
       int a = 5, b = 10, c = 15;
       int *arr[ ] = {&a, &b, &c};
       cout << arr[1];
       return 0;
    }
    ```
    a) 5
    b) 10
    c) 15
    d) it will return some random number

13. What will be the output of the following C++ code?
    ```
    #include <iostream>
    using namespace std;
    int main()
    {
       char arr[20];
       int i;
       for(i = 0; i < 10; i++)
          *(arr + i) = 65 + i;
       *(arr + i) = '\0';
       cout << arr;
       return(0);
    }
    ```
    a) ABCDEFGHIJ
    b) AAAAAAAAAA
    c) JJJJJJJJ
    d) AAAAAAJJJJ

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14. Write C++ program to ask the user to enter array {1,5,13,4,25} from keyboard then ask the user to enter the required number to search it {13} using jump search technique

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