Name: _____

Registration Number: _____

1. Complete the following program to find largest element in an array by **defining and calling a function** that performs the task of finding largest element in the array. Your **function must pass the array and return** the value of the largest element in the array.

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

int findMax(int[], int);   // Function prototype

int main() {
   const int arraySize = 10;
   int array[arraySize] = {32, 12, 87, 25, 4, 45, 87, 33, 67, 1};


   int max = findMax(array, arraySize);

   cout << "\nMax = " << max << "\n";


   return 0;
}

// Function definition
int findMax(int array[], int size) {

   for(int i = 0; i < size; i++) {
       if(array[0] < array[i])
           array[0] = array[i];
   }
   return array[0];
}
```

1- What is the correct output of the following code? Or mention if syntax error.
```cpp
int array[5] = {1,2,3,4,5};
int x = 5;
cout << array[x - 1];
```
5

2- What is the correct output of the following code? Or mention if syntax error.
```cpp
int array[5] = {2,4,6,8,10};
int x = 5, y = 4;
cout<<array[x % 4];
```
4

3- What is the correct output of the following code? Or mention if syntax error.
```cpp
int array[4] = {0,3,6,9};
int j = 0;
cout << array[j++];
```
0

4- What is the correct output of the following code? Or mention if syntax error.
```cpp
int array[4] = {0,2,4,6};
int i = 1;
cout << array[--i];
```
0

5- What is the correct output of the following code? Or mention if syntax error.
```cpp
int array[] = {1,3,8,15};
cout << array[array[1]];
```
15

6- What is the correct output of the following code? Or mention if syntax error.
```cpp
char string[] = {'h', 'e', 'l', 'l', 'o', '\0', 'w', 'o', 'r',
                 'l', 'd', '\0'};
cout << string;
```
hello

7- What is the correct output of the following code? Or mention if syntax error.
```cpp
char string[] = "final exam";
cout << string;
```
final exam

8- When the following program is executed, the user enters "final exam" at the prompt. What will be printed on the screen (program output), as a result of the **cout** statement?
```cpp
char string[20];
cin >> string; //The user enters "final exam" at the prompt
cout << string;
```
final

9- What is the correct output of the following code? Or mention if syntax error.
```cpp
void FunArray1( int &b, int sizeOfArray ) {
    b += 2;
}
void main(){
    int b [10] = {1,2,3,4,5,6,7,8,9,0};
    int i = 0;
    FunArray1( b[i] , 10 );
    for (i = 0; i < 10; i++ ) {
        cout << setw( 4 ) << b[ i ];
    }
}
```

Sytax error

10- What is the correct output of the following code? Or mention if syntax error.

```
void FunArray2 ( int b[], int sizeOfArray ) {
  for ( int j = 0; j < sizeOfArray; j++ )
     b[ j ] *= 10;
}

void main() {
     int b [10] = {0,1,2,3,4,5,6,7,8,9};
     FunArray2 ( b, 10 );
     for (int i = 1; i < =10; i++ )
        cout << setw( 4 ) << b[10-i];
}
```

90   80   70   60   50   40   30   20   10   0

11- What is the correct output of the following code? Or mention if syntax error.

```
void FunArray3 ( int b[], int sizeOfArray ) {
    for ( int j = 1; j <= sizeOfArray; j++ )
        b[ 10-j ] = j;
}

void main() {
     int b [10] = {0,1,2,3,4,5,6,7,8,9};
     FunArray3 ( b, 10 );
     for (int i = 1; i <= 10; i++ )
        cout << setw( 4 ) << b[10-i];
}
```

1   2   3   4   5   6   7   8   9   10

12- What is the correct output of the following code? Or mention if syntax error.

```
void FunArray4 ( int b[], int sizeOfArray ) {
  for ( int j = 0; j < sizeOfArray; j++ )
     b[ j ] *= 10;
}
void main() {
     int b [10] = {0,1,2,3,4,5,6,7,8,9};
     FunArray ( b[10], 10 );
     for (int i = 1; i <= 10; i++ )
         cout << setw( 4 ) << b[10-i];
     getch();
}
```

Syntax error