National University of Computer and Emerging Sciences, Lahore Campus				
	Course:	Object Oriented Programming	Course Code:	CS-217
	Program:	BS Computer Science	Semester:	Spring 2024
	Duration:	20 minutes	Total Marks:	10
	Date:	-	Weight:	-
	Section:	D	Page(s):	1
	Exam:	Quiz 1 (b)	Roll No.	

Q1. For the given code, give the output or error. In case of error specify which line causes it.

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

void updateArr(int* arr, int size)
{
        int* temp = new int[size];
        arr = temp;
        for (int i = 0; i < size; i++)
                arr[i] = i + 1;
}

void main()
{
        int* ptr = 0;
        int size = 5;

        ptr = new int[size];
        for (int i = 0; i < size; i++)
                *(ptr + i) = i * 2;

        updateArr(ptr, size);

        for (int i = 0; i < size; i++)
                cout << ptr[i] << ", ";
}
```

0, 2, 4, 6, 8

Q2. Complete the main function in the following code by initializing two integer pointers of the input sizes. Take input from user to enter the values of both these arrays. Then merge these two into a third dynamically allocated integer array. Lastly, deallocate the memory of the first two arrays according to proper coding practices.
(For example: arr1 = {1, 2, 3, 4}, arr2 = {2, 2, 2, 2, 2}, arr3 will be {1, 2, 3, 4, 2, 2, 2, 2, 2})
(5)

```cpp
void main()
{
        int size1, size2;
        cin >> size1;
        cin >> size2;

//  write your code here:
```

```cpp
        int* arr1 = new int[size1], *arr2 = new int[size2];

        for (int i = 0; i < size1; i++)
              cin >> arr1[i];
        for (int i = 0; i < size2; i++)
              cin >> arr2[i];

        int* arr3 = new int[size1 + size2];
        int j = 0;
        for (int i = 0; i < size1; i++, j++)
              arr3[j] = arr1[i];
        for (int i = 0; i < size2; i++, j++)
              arr3[j] = arr2[i];

        delete[] arr1;
        arr1 = 0;
        delete[] arr2;
        arr2 = 0;
```

```cpp
}
```