National University of Computer and Emerging Sciences, Lahore Campus

Object Oriented Programming (Version B)

Total Marks: 10

Section: BCS-9A **Due Date:** 19th July, 2023

Name: _____ **Roll Number**: _____

Q1: Write the Output of the Following (5 Marks)

```
#include<iostream>
using namespace std;
void function_B(int* p, int* &q)
{
	p = new int;
	*p = *q * 3;
	cout << *p << endl;
	*q = *p * 3;
	delete p;
}
void function_A(int* &p, int* q)
{
	q = new int;
	*q = *p + 50;
	cout << *q << endl;
	*p = *q - 20;
	function_B(p, q);
	delete q;
}
int main()
{
	int x = 30;
	int* ptr1 = &x;
	int* ptr2 = new int;
	*ptr2 = 20;
	cout << *ptr1 << " " << *ptr2 << endl;
	function_A(ptr1, ptr2);
	cout << *ptr1 << " " << *ptr2 << endl;
	function_B(ptr1, ptr2);
	cout << *ptr1 << " " << *ptr2;
	delete ptr2;
	return 0;
}
```

Output:

Q2: Write the Output of the Following: (5 Marks)

```
#include<iostream>
using namespace std;
void fun(int* a, int* b, int m, int n)
{
   int i = 0, j = 0;
   cout << "Output" << endl;
   while (i < m && j < n)
   {
      if (*(a + i) < *(b + j))
      {
         cout << *(a + i) << " ";
         i++;
      }
      else if (*(a + i) > *(b + j))
      {
         cout << *(a + j) << " ";
         j++;
      }
      else
      {
         j++;
      }
   }
}
int main()
{
   int m, i, j, n, * a, * b;
   m = 5;
   n = 3;
   a = new int[m] {1, 4, 5, 6, 7};
   b = new int[n] {1, 2, 3};
   fun(a, b, m, n);
   return 0;
}
```