



**National University of Computer and Emerging Sciences,  
Lahore Campus**

**Object Oriented Programming (Version B)**

**Total Marks: 10**

**Section: BCS-9A**

**Due Date: 19<sup>th</sup> 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;
}
```

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