

**CSE 306: Algorithms Lab (Sec-2)**  
Department of Computer Science and Engineering  
University of Liberal Arts Bangladesh

**Course Title:** Algorithms Lab

**Course Code:** CSE 306

**Total Marks:** 15

**Time:** 40 minutes

**Name:** \_\_\_\_\_ **ID:** \_\_\_\_\_

**1.** Consider the following code: 10

```
#include <stdio.h>

#define size_1 4
#define size_2 3

int arr1[size_1] = { 10, 40, 50, 70 };
int arr2[size_2] = { 30, 80, 90 };

int final_arr[size_1 + size_2];

void merge()
{
    // write your solution here
}

int main()
{
    merge();

    int i;
    for (i = 0; i < size_1 + size_2; i++) printf("%d ", final_arr[i]);
    printf("\n");

    return 0;
}
```

Complete the function `merge` that merges the two sorted arrays `arr1` & `arr2` and stores the sorted values in the array `final_arr`.

SAMPLE INPUT	SAMPLE OUTPUT
	10 30 40 50 70 80 90

**2.** Interview 5