United International University
Department of Computer Science and Engineering (CSE)
Course: CSE 1112 Structured Programming Language Laboratory
Trimester: Spring 2025 **Section:**
Midterm Exam
Set A

Name: **ID:**

1. Write a C program that deletes the maximum value from an unsorted array, sorts the remaining values in ascending order and finally, inserts the deleted maximum value at its right place in the sorted array. The array size and values must be taken as user input.   [13]

Sample Input	Sample Output
Please enter size: 4 Index 0: 12 Index 1: 34 Index 2: 5 Index 3: 6	The initial array is as follows: 12 34 5 6 The array after deletion as follows: 12 5 6 The array after sorting is as follows: 5 6 12 The array after insertion is as follows: 5 6 12 34
Please enter size: 5 Index 0: 3 Index 1: 6 Index 2: 5 Index 3: 12 Index 4: 56	The initial array is as follows: 3 6 5 12 56 The array after deletion is as follows: 3 6 5 12 The array after sorting is as follows: 3 5 6 12 The array after insertion is as follows: 3 5 6 12 56

2. Write a C program that takes the matrix size as input, and prints the following pattern. The program must work for both odd and even number of size inputs. [12]

Sample Input	Sample Output
7	0 1 1 0 0 0 0 0 1 1 0 0 0 0 0 1 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1 1 1 0 1 1 1 1 1 1 0 0 0 0 0 0 0
8	0 1 1 1 0 0 0 0 0 1 1 1 0 0 0 0 0 1 1 1 0 0 0 0 0 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 0 0 0 0 0 0 0 0