

**Metropolitan University, Sylhet**  
**Department of Computer Science and Engineering**

**Program:** B.Sc. in CSE; **Course:** CSE 134: Data Structure Lab

**Time: 3 Hours**

**Marks: 30**

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[All questions are mandatory. ]

**1** Consider the following 2-d matrix. **10**

1 2 3  
4 5 6  
7 8 9

Write the code to find the value of the following terms.

- (i) Sum of all the elements of the matrix.
- (ii) Sum of the major diagonals.
- (iii) Sum of all the cell values whose row number is even and column number is odd.

**2** Write the code to find the number of digits and the digits present in a number using recursion. **10**

Input : 123, output : 3, {1,2,3}

Input : 1234, output : 4, {1,2,3,4}

**3** Write the code to simulate a stack where the maximum size is 3. **10**