

## **6CE2-A Batch**

### **SET-A**

#### **Part-A: String Validation Using Finite Automata**

##### **Objective:**

Design and implement a DFA to validate input strings based on specified rules.

##### **Test Cases:**

1. String over {0,1} having **even length**.
2. String over {a,b} that must **contain substring “ab”**.

#### **Part-B: Lex Programs**

##### **Objective-1:**

Write a Lex program to identify and count all **vowels** in the input.

##### **Sample Input:**

Compiler Design

##### **Expected Output:**

Total Vowels: 6

##### **Objective-2:**

Write a Lex program to remove all **digits** from the input text.

##### **Sample Input:**

Lab123 Session45

##### **Expected Output:**

Lab Session