

**Group-2 (Student ID: 1801021F-1801046M)**

**Marks: 40**

**Time: 1.20Hrs**

1. Write a C program to recognize strings those starting with 'b' and ending with 'c' over  $\Sigma=\{b,c\}$ . (20)

**Note:** The logic will be based on the concept of finite automata. Don't use any other shortcut ways.

Sample Input	Sample Output
Enter a string: bc	Accepted
Enter a string: bcb	Rejected
Enter a string: cbb	Rejected
Enter a string: bccbc	Accepted

2. Write a C program to compute FIRST for the following grammar: (20)

**S -> iEtSS'|d**

**S' -> eS|ε**

**E -> r**

Sample Output
First(S)={i,d} First(S')={e, ε} First(E)={r}