

# **SPCC Practical Exam Question Bank**

## **JAVA / C / C++ / Python Programs**

### **1. Program to implement Lexical Analyzer**

### **2. Program to implement Multi-Pass Macroprocessor for the given Assembly Language (Pass1).**

*Generation of different tables is expected from given sample program*

### **3. Program to remove Left Recursion from the given grammar**

*Grammar will be given, modified grammar without left recursion is expected*

### **5. Program to perform Left Factoring from the given grammar**

*Grammar will be given, modified grammar with left factoring is expected*

### **6. Program to implement the FIRST set for the given grammar**

*Grammar will be given; output of FIRST function is expected*

### **7. Program to implement the FOLLOW set for the given grammar**

*Grammar and FIRST of grammar will be given, output of FOLLOW function is expected*

### **8. Program to implement LL(1) parser**

*FIRST and FOLLOW will be given, Parsing table is expected*

### **9. Program to generate Three Address Code (TAC)**

*Input expression will be given, corresponding TAC is expected*

### **10. Program to develop an Optimized Code.**

*Sample Code will be given, optimized code is expected*

## **LEX Programs**

11. LEX Program to check whether input character is vowel or consonants.
12. LEX Program to check whether the string is a word or a number or combination of both.
13. LEX Program to count the number of lines, words and characters in a text.
14. LEX Program to implement Lexical Analyzer
15. LEX Program to accept user name and print message "Hello <user name>"

### **Note:**

- **VIVA will be based on Complete Syllabus**
- **Every student will get 2 programs (1 LEX program and 1 Java/Python/C/C++ program)**
- **Marks of Practical Exam will be based on VIVA and successful execution of code with proper explanation of logic of the program**