

**DEPARTMENT OF COMPUTER SCIENCE**

**THEORY OF COMPUTATION**

**SUBMITTED BY:**

{name}

{roll}

4th Semester - Section {section}

**SUBMITTED TO:**

Department of Computer Science

St. Xavier’s College

Maitighar, Kathmandu

ST. XAVIER’S COLLEGE

MAITIGHAR, KATHMANDU

THEORY OF COMPUTATION  
PRACTICAL INDEX SHEET

**B.Sc. CSIT 4th Semester**

T.U. Regd. No.:………………………………… Class Roll No.:.…...................

Name of Student:……………………………….. Year/Sem.:...............………...

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.No.** | **Title of the Experiment** | **Final Submission Date** | **Signature** | **Remarks** |
| 1 | TO VALIDATE THE STRINGS USING C/C++ PROGRAMMING |  |  |  |
| 2 | TO IMPLEMENT DFA OVER {openBr}A, B{closeBr} THAT IDENTIFIES ALL THE STRINGS HAVING SUB STRING 'AA' |  |  |  |
| 3 | TO IMPLEMENT DFA OVER {openBr}0, 1{closeBr} THAT IDENTIFIES ALL STRINGS HAVING 0'S WITH MULTIPLE OF 3 |  |  |  |
| 4 | TO IMPLEMENT NFA OVER {openBr}0, 1{closeBr} HAVING TWO CONSECUTIVE 0'S OR 1'S. |  |  |  |
| 5 | TO IMPLEMENT MOORE MACHINE WHICH COUNTS THE OCCURRENCE OF SUB STRING "AAB" |  |  |  |
| 6 | TO IMPLEMENT MEALY MACHINE WHICH WORKS AS A BINARY INCREMENTER |  |  |  |
| 7 | TO IMPLEMENT A PROGRAM THAT IDENTIFIES C-IDENTIFIERS |  |  |  |
| 8 | TO IMPLEMENT A PROGRAM THAT IDENTIFIES C-KEYWORD |  |  |  |
| 9 | TO IMPLEMENT A PROGRAM THAT IDENTIFIES VALID MAC ADDRESS |  |  |  |
| 10 | TO IMPLEMENT A PROGRAM THAT IDENTIFIES VALID GMAIL ADDRESS |  |  |  |
| 11 | TO IMPLEMENT A R.E. THAT IDENTIFIES THE STRUCTURE OF THE INPUT: AB\*B+AA\*B OVER {openBr}A, B{closeBr} |  |  |  |
| 12 | TO IMPLEMENT PDA {openBr}A, B{closeBr} HAVING EQUAL NO. OF A'S AND B'S |  |  |  |
| 13 | TO IMPLEMENT TM OVER {openBr}A, B{closeBr} THAT RECOGNIZES STRING OF LANGUAGES L = {openBr}A^N B^N C^N | N >= 1{closeBr} |  |  |  |