**Compiler Design**

**(303105349)**

**PIET**

**Assignment -1**

1. Draw structure of Compiler. Also explain Analysis Phase in brief.
2. Write a brief note on input buffering techniques to Lexical Analyzer.
3. What is a pass in a compiler? What is the effect of reducing the number of passes?
4. Explain the analysis synthesis model of compilation. List the factors that affect the design of compiler. Also List major functions done by compiler.
5. Find the Regular Expression corresponding to given statement, subset of {0,1}\*

1. The Language of all strings containing at least one 0 and at least one 1

2. The Language of all strings containing 0’s and 1’s both are even.

3. The Language of all strings containing at most one pair of Consecutive 1’s.

4. The Language of all strings that do not end with 01.

5. Write down the regular expression for the binary strings with even length.

1. How do the parser and scanner communicate? Explain with the block diagram communication between them.
2. Draw Deterministic Finite Automata for:

1. (0+1)\*101(0+1)\*

2. 10(0+1)\*1

1. Draw Transition diagram of unsigned integer
2. Draw Minial DFA using Syntax Directed Tree method.

(a|b)\* abb

1. Define: Ambiguous Grammar