DEPARTMENT OF INFORMATION TECHNOLOGY
ANNA UNIVERSITY, MIT CAMPUS

IT5502 COMPILER ENGINEERING

Regulation 2019

Course Outcomes:

CO1: Understand the concept of lexical analysis and construction of deterministic and non-deterministic automata.

CO2: Understand the concept of parsing and construction of parser. Develop an Intermediate Code generator.

CO3: Study programming language design, target machine design and run time environment of compilers.

CO4: Study about the compiler construction tools.

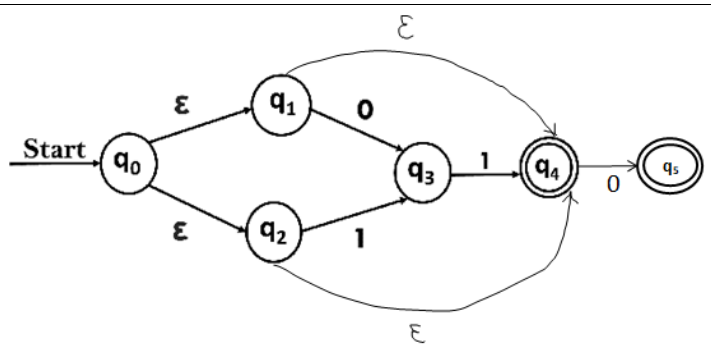
CO5: Obtain knowledge to construct a prototype compiler for a subset of a programming language.

5/8 B.Tech-IT (Full time) **Assessment Test- I** **Maximum Marks: 40**

Date: 22/10/2021 **Time: 2 hours**

PART - B

Q.No	Questions	Marks	CO
1	Explain Analysis phase of compiler with a neat diagram and also explain how the stages of analysis phase are associated with symbol table.	5	CO1
2	Explain the role of scanner with diagram. Write any code snippet (5 lines) and count the number of tokens in your code. Tabulate the possible tokens and lexemes in the code.	6	CO1
3	Convert the following Ɛ -NAF to DFA and also minimize the resultant DFA	6	CO1

			
4	Explain Kleene's Theorem	5	CO1
5	What is lex program, explain its structure. Write a lex program to find out the sum of series 1^2 + 2^2 + …. + n^2.	6	CO1
6	Write a regular expression that accepts all string starting with ab and ending with ba. ∑=(a,b) Convert the RE to NFA then to DFA	6	CO1
7	Write a short note about specification and recognition of tokens	6	CO1