

DEERWALK INSTITUTE OF TECHNOLOGY**MID TERM EXAMINATION, SEM VI****SUBJECT****CSC- 352 COMPILER DESIGN AND CONSTRUCTION****PASS MARK****12****FULL MARK****30****TIME****1.5 HRS****DATE****26 SEPTEMBER, 2016****INSTRUCTIONS***Do not write anything on the question paper.**Please write your name, roll number and other details very clearly on the front page of the answer sheet.**If you are using multiple answer sheets, ensure that they are safely stapled together.**Any attempt to cheat in any manner will result in automatic expulsion.**If you need any kind of help please raise your hand.**Good luck and all the best.***Attempt All Questions[5×6=30]**

1. What do you mean by compiler and Interpreter? Explain the phase of a compiler with block diagram.
2. Define token, pattern and lexeme with suitable example. How input buffering can be implemented for scanner, explain.
3. Convert the regular expression "**0 + (1 + 0)* 00**" first into NFA and then into DFA using Thomson's and Subset Construction methods.
4. Consider the grammar :
$$S \rightarrow aSbs \mid bsas \mid \epsilon$$
 - a. Show that this grammar is ambiguous by constructing two different leftmost derivations for sentence abab.
 - b. Construct the corresponding rightmost derivations for abab.
 - c. Construct the corresponding parse trees for abab.
5. Explain the usage of FLEX for YACC for compiler design.

