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SIXTH SEMESTER **B. Tech.**

MID SEMESTER EXAMINATION **March-2019**

SE306 COMPILER DESIGN

Time: 1:30 Hours *Max. Marks: 25*

Note: All questions are compulsory. Assume suitable missing data, if any.

Q.1 Explain all phases of compiler in detail with suitable example. [4]

Q.2 (a) Derive the string 'aababa' using right most derivation for the following Context Free Grammar (CFG), also draw it's parse tree

S →aSX/b

X → Xb/a [3]

(b) Draw transition diagram for identifiers and reserved words. [2]

Q.3 (a) How left recursion affect the parsing? How we remove left recursion from the grammar, Explain with example. [4]

(b) Write down Difference between top down and bottom up parsing. [2]

Q.4 (a) Explain the algorithm to construct the LR (0) parser. [2]

(b) Construct SLR (1) parsing table for the given grammar

S → (L)/ id

L → S/ L,S [4]

Q.5 (a) Explain the structure of LL(1) parser with the help of block diagram. [2]

(b) Calculate FIRST and FOLLOW of the given grammar

S → A, A → aB / Ad, B → b, C → g [2]

END