Sankalchand Patel College of Engineering, Visnagar
Computer Engineering Department
ME Computer Engineering (IInd Sem)
Sub: Design of Language Processors (1720202)

<u>MID-SEMESTER QUESTION BANK</u>

Sr. No.	Questions
1	Write unambiguous production rules for arithmetic expression consisting of following operators: +, - (binary), - (unary), ( ), *, /, ^ (exponent). Draw parse tree for following : id * id + (id ^ id ^ id) * id * id
2	What is left factoring? Give example. Write unambiguous production rules for if then else construct.
3	Explain working of an operator precedence parser. Construct precedence graph and precedence table for operators id, +, *, /, $. Parse following string : $ id + id * id / id $
4	Construct NFA and then DFA for following regular expression: (a | b) (b * | c*) a*#
5	What is called symbol table? Explain its' importance during compilation process.
6	Construct NFA for following regular expression and convert it into DFA. a+ b* (c | d | e) a* #
7	What is the difference between syntax tree and parse tree? Explain it with proper example.
8	What is called ambiguous grammar? Explain it with suitable example.
9	Find first and follow for following grammar and construct predictive parsing table. Is this grammar LL(1)? $S \rightarrow$ a A B b $A \rightarrow$ c | $\in$ $B \rightarrow$ d | $\in$
10	Find LR(0) items for following grammar and construct SLR parsing table. $S \rightarrow$ A a A b $S \rightarrow$ B b B a $A \rightarrow \in$ $B \rightarrow \in$