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Show that the grammar is ambigious for the sentence id + id * id. (10 Marks) OR			Consider grammar given below from which any arithmetic expressions can be obt	ained.
OR				(10 Marks)
6 a. Write an algorithm to eliminate left recursion from a grammar. Eliminate left recursion from	6	a.		rsion from
the given grammar. $S \rightarrow Aa \mid b$ $A \rightarrow Ac \mid Sd \mid \epsilon$. (10 Marks)		u	the given grammar. $S \rightarrow Aa \mid b$ $A \rightarrow Ac \mid Sd \mid \epsilon$.	(10 Marks)
b. Define Shift – Reduce Parser and Handle. What are conflicts in shift – reduce parse, explain with example. (06 Marks)				
7 7 1 1 1 1 1 100		c.	List and explain different actions of shift – reducer parser	(06 Marks)

7 a. Explain the three basic section of LEX program with example.
b. Write LEX program to count word, character and line count in a given file. (10 Marks) (10 Marks) OR

- What is YACC? Explain the different sections used in writing the YACC specification. (10 Marks) Explain with example program.
 - Define Regular Expression. What is the use of following Meta characters:
 - (07 Marks) vi) ? iii) ii) (03 Marks) Discuss how Lexes and Parser communicate

Module-5 Define S - Attribute and I - Attribute with respect to SDD and construct Syntax tree, Parse tree and annotated tree for string 5 *6 + 7 by using given grammar.

 $T \rightarrow T \mid F$ $S \rightarrow En$ $E \rightarrow E + T \mid E - T \mid T$ $F \rightarrow (E) \mid digit \mid$ $T \rightarrow T * F$

(10 Marks) b. What are the different three address code instructions? Translate the arithmetic expression (10 Marks) a + b - (-c) into quadruples, triplets and indirect triples.

OR" Define SDD Give SDD for simple type declaration. Construct a dependency graph for the 10 (10 Marks) declaration int a, b; (10 Marks)

b. Explain the issues in design of code generation.