CS450 : Design of language processor.

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Assignment :- 1

1) Draw and explain structure of compilers in detail.
2) Explain tokens, patterns and lexemes.
3) Explain error recovery strategies in detail.
4) Explain the Role of lexical Analyzer.
5) Find out FIRST and Follow set for all the nonterminals.
6) S -> ACB | CbB | Ba
   A -> da | BC
   B -> g | ∈
   C -> h | ∈
6) Elimination of Left recursion.
   A -> ABd / Aa | a
   B -> Be | b
7) Elimination of Left factoring.
   S -> aSSbS | aSaSb | abb | b
8) For the following grammar
   D -> TL;
   L -> L, id | id
   T -> int | float
1) Remove Left recursion (if required)
2) Find First and Follow
3) construct LL(1) parsing table.
4) parse the following string and draw parse tree for the input: int id, id;

9) write SLR Parsing table for: S → T ,
T → CC , C → cC , C → d.

10) construct an LALR(1) parsing table for the following grammar:
S → Aa | bAc | dc | bda
A → d.

11) Explain quadruple, triple and indirect triple with suitable example.

12) what is a syntax directed translation scheme? Explain with an example.

13) list and elaborate on the issues of the code generator.

14) what is the Activation tree & record?

15) Explain peephole optimization method.