

CSE-4801 Quiz

E: E+T

E: T

T: T * F

T: F

F: id

F: (E)

Q1: Write down the Syntax Directed Definition (SDD) for the above grammar to evaluate value and type of a grammar symbol.

Q2: Write down the Syntax Directed Definition (SDD) for the above grammar to generate a syntax tree for AN expression. Assume that the following functions are available to generate tree nodes.

makeNode(op,node1.ptr,node2.ptr) : create an internal node and return the node pointer.

makeLeaf(id, id.entry) : create a leaf and return the node pointer.

Q3: Write short notes on the followings-

L-attributed definitions. S-attributed definitions, Translation Scheme, Type checking for statements.

Q4: Design a grammar which can recognize following form of statements-

```
int roll1, roll2, roll3;  
float gpa1, gpa2;  
int price1, price2;  
char op1,op2,op3,op4;
```