Paper: Compiler Design

Full Marks: 20   **Time: 1hr**

1. What are the possible actions that a shift-reduce parser can make? What is shift/reduce and reduce/reduce conflict.   2+2=4

2. Define Closure of Item Sets.   2

3. Make LR(0) automaton for the following augmented grammar.   6

$E' \rightarrow E$

E $\rightarrow$ E+T | T

T $\rightarrow$ T*F | F

E $\rightarrow$ (E) | id

4. Make LR(0) parsing table from the LR(0) automaton.   3

5. For the grammar mentioned in QNo. 3, show the Syntax Directed Definition of the grammar. Also show an annotated parse tree for the expression 5+3*4.   5