

UNIT 5: TOP-DOWN PARSING TECHNIQUES

1. IS THIS AN LL(1) GRAMMAR (WHY)? TRANSFORM THE GRAMMAR INTO AN EQUIVALENT LL(1):

$$G = \Sigma_N = \{ S, A, B, C \}, \Sigma_T = \{ 0, 1, 2 \}, S, \emptyset$$

$$\emptyset = \left\{ \begin{array}{l} S ::= B 2 A \\ A ::= 0 A \mid 0 \\ B ::= 1 C \mid \lambda \\ C ::= 2 A \mid 1 \end{array} \right\}$$

2. CALCULATE THE LL(1) TABLE FOR THE TRANSFORMED GRAMMAR. SHOW THE DERIVATION TREE FOR THE SENTENCE 120 APPLYING THE LL(1) ANALYSIS.