American International University-Bangladesh



Faculty of Science & Information Technology

Department of Computer Science

CSC 3220 Compiler Design (Section I)

Total Marks: 10 Faculty: Md Masum Billah Time: 15 minutes

Table-based LL(1) Predictive Top-Down Parsing

S → A

A → BC | DBC

B → bB’ | ε

B’→ bB’ | ε

C → c | ε

D → a | d

1. Compute the FIRST and FOLLOW set of non-terminal symbols of the grammar.

|  |  |  |
| --- | --- | --- |
| Production | FIRST() | FOLLOW() |
| S | {b, c, ε, a, d} | {$} |
| A | { b, c, ε, a, d} | {$} |
| B | {b, ε} | {c, $} |
| B’ | {b, ε} | {c, $} |
| C | {c, ε } | {$} |
| D | {a, d} | {b, c, $} |

1. Construct the corresponding parsing table using the predictive parsing LL1 method.
2. 