



Fig. 4.36. Transition diagram of DFA  $D$  for viable prefixes

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| STATE | action |    |   |    |     |     | goto |   |    |
|-------|--------|----|---|----|-----|-----|------|---|----|
|       | id     | +  | * | (  | )   | \$  | E    | T | F  |
| 0     | s5     |    |   | s4 |     |     | 1    | 2 | 3  |
| 1     |        | s6 |   |    |     | acc |      |   |    |
| 2     | r2     | s7 |   | r2 |     |     |      |   |    |
| 3     | r4     | r4 |   | r4 |     |     |      |   |    |
| 4     | s5     |    |   | s4 |     |     | 8    | 2 | 3  |
| 5     | r6     | r6 |   | r6 |     |     |      |   |    |
| 6     | s5     |    |   | s4 |     |     |      | 9 | 3  |
| 7     | s5     |    |   | s4 |     |     |      |   | 10 |
| 8     |        | s6 |   |    | s11 |     |      |   |    |
| 9     | r1     | s7 |   | r1 |     | r1  |      |   |    |
| 10    | r3     | r3 |   | r3 |     | r3  |      |   |    |
| 11    | r5     | r5 |   | r5 |     | r5  |      |   |    |

Fig. 4.31. Parsing table for expression grammar.

s<sub>i</sub> means shift and stack state *i*,

r<sub>j</sub> means reduce by production numbered *j*,

acc means accept,

blank means error.

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