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CSCI 3155

Lab 6 Write-up

2. b. i.

union ::= intersect | union ‘|’ intersect

intersect ::= concat | intersect & concat

concat ::= not | concat not

not ::= ~not | start

atom ::= ! | # | c | . | ‘(‘re’)’

star ::= atom | \* | + | ?

re ::= union

2. b. ii.

A recursive descent parser of this grammar with left recursion would go into an infinite loop because the parser doesn’t know when to end when parsing the nonterminal symbols.

2. b. iii.

re ::= union

union ::= intersect unions

unions ::= ɛ | ‘|’ intersect unions

intersect ::= concat intersects

intersects ::= ɛ | ‘&’ concat intersect

concat ::= not concats

concats ::= ɛ | not concat

not ::= ‘~’ not | star

star ::= atom stars

stars ::= ɛ | ‘\*’ atom star

stars ::= ɛ | ‘+’ atom star

stars ::= ɛ | ‘?’ atom star

atom ::= ‘!’ | ‘#’ | c | ‘.’ | ‘(‘re’)’



