

Question-2:- What are the rules of Operator Precedence Parsing. In which broad category of parsing, it falls under.

Answer:- A parser that reads and understands an operator precedence grammar is called operator precedence grammar parser.

A grammar is said to be operator precedence grammar if it has two properties:-

- (i) No R.H.S. of any production has ϵ .
- (ii) No two non-terminals are adjacent.

The precedence relations are defined using the following rules:-

(1) Rule-1:-

- If precedence of b is higher than precedence of a , then we define $a < b$.
- If precedence of b is same as precedence of a , then we define $a = b$.
- If precedence of b is lower than precedence of a , then we define $a > b$.

(2) Rule-2:-

- An identifier is always given the higher precedence than any other symbol.
- An $\$$ symbol is always given the lowest precedence.

(3) Rule-3:-

- If two operators have the same precedence, then we go by checking their associativity.

An operator precedence parser is a bottom-up parser that interprets an operator grammar. This parser is only used for operator grammar. Ambiguous grammars are not allowed in any parser except the operator precedence parser.