

COLLEGE OF ENGINEERING AND MANAGEMENT PUNNAPRA
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COMPILER DESIGN

MODULE III

OLD UNIVERSITY QUESTIONS

APRIL 2018

1. Demonstrate the identification of handles in operator precedence parsing?
2. Construct canonical LR(0) collection of items for the grammar below.

$S \rightarrow L = R$

$S \rightarrow R$

$L \rightarrow * R$

$L \rightarrow id$

$R \rightarrow L$

Also identify a shift reduce conflict in the LR(0) collection constructed above

3. Construct LALR parse table for the grammar $S \rightarrow CC, C \rightarrow cC|d$

MAY 2019

4. Explain the main actions in a shift reduce parser
5. What are different parsing conflicts in SLR parsing table?
6. Find the LR(0) items for the grammar
 $S \rightarrow SS \mid a \mid \epsilon$.
7. Derive LALR (1) parsing algorithm for following grammar
 $S \rightarrow AS/b \quad A \rightarrow SA/a$
8. Explain operator grammar and operator precedence parsing

DECEMBER 2019

9. Compute FIRST and FOLLOW for the grammar:
 $S \rightarrow SS+ \mid SS* \mid a$
10. Write the algorithm to construct LR(1) collection for a grammar.
11. Write algorithm for SLR parsing table construction
12. Construct the SLR table for the grammar:
 $S \rightarrow aSbS \mid a$
13. Differentiate CLR and LALR parsers.