

Dr. Yugal

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

(T-2 Examination April-2019)

B.Tech. 6TH Semester

COURSE CODE: 10B11CI612

MAX. MARKS: 25

COURSE NAME: COMPILER DESIGN

COURSE CREDITS: 4

MAX. TIME: 1.5 Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

- Q.1 [CO 4] Answer the following statements with proper justifications: (2x3)
- Why LR parsing is more attractive as compared to LL parsing?
 - If the grammar is ambiguous then there exist exactly one handle for each right sentential form.
 - A grammar containing left recursion cannot be LL (1), therefore a grammar containing right recursion cannot be LR (1).
- Q.2 [CO 5] Construct LR(1) parsing table for following grammar and also find out total number of shift reduce conflict. 6
- S → E = E / f
E → T / E + T
T → f / T * f
- Q.3 [CO 5] Find out whether following grammar is LALR(1) or not? 6
- S → A
S → xb
A → aAb
A → B
B → x
- Q.4 [CO 4] Construct LR(0) parsing table for following grammar: (4+3)
- S → L = R / R
L → *R / id
R → L
- Also show how bottom up parser will verify whether the string id = *id should be accepted or not.