Er. No. 20.1830.3
Academic Year: 2023-24

Semester VII (B. Tech)

Jaypee University of Engineering & Technology, Guna
T-2(Odd Semester 2023)
18B14CI541 – Compiler Design

Maximum Duration: 1 Hour 30 minutes

Maximum Marks: 25

Notes:
1. This question paper has five questions.
2. Write relevant answers only.
3. Do not write anything on question paper (Except your Er. No.).

	Marks	**CO No.**

Q1. Consider the grammar G: E→E+E |E*E |(E) |id and the input string $id_1 + id_2 * id_3$. Compute the right-sentential form and handle of the input string. **[05]** CO2

Q2. Consider the ambiguous grammar G:
E→E + E | E - E |E * E |E / E | (E) | id
Construct the SLR (1) parsing table for grammar G. (LR(0) items) **[05]** CO3

Q3. Consider the grammar G:
E→E+T | T
T→TF |F
F→F* | (E) | a | b |€
Construct the LR (1) sets of items and the LALR parsing table for the above grammar. LALR (1) **[05]** CO3

Q4. Write the syntax directed translation scheme for conversion of binary to decimal numbers. **[05]** CO4

Q5. Write the abstract translation scheme to generate three address code and implement the quadruples, triples, and indirect triples for expression: −a+b * (c+d) / (a + b + c). **[05]** CO4