LNCT UNIVERSITY, BHOPAL

Enrollment No.

CS-404
B.TECH (CS) IV SEMESTER(NEW BATCH) EXAMINATION[JUNE-2025]
COMPILER DESIGN

Maximum Marks: 70   **Time Allowed: 3 Hours**

Note:- Attempt all questions. Internal choices are given.

(SECTION –A)

1. **Short Answer Type Questions (Attempt Any Five)**   [5x6=30]

    i.   Define compiler and differentiate between compiler and interpreter.

    ii.   Define dead code elimination with an example.

    iii. Write a short note on predictive parsing.

    iv.   Explain the role of LEX in lexical analysis.

    v.   What are left recursion and right recursion in grammar?

    vi.   Define token, pattern, and lexeme.

    vii. What is syntax directed translation?

(SECTION–B)

2. **Long Answer Type Questions (Attempt Any Four)**   [4x10=40]

    i.   Generate intermediate code for the expression: $a = b + c * d$ using quadruples and triples.

    ii.   Explain DAG construction for basic blocks with an example.

    iii. Design a code generator that converts three address code to assembly.

    iv.   Explain register allocation and assignment using flow graphs.

    v.   Discuss code generation for Boolean expressions using back patching.

    vi.   Write intermediate code for switch-case statement and explain its translation.