Roll No. ⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚⬚ Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE)   (Sem.–6)

COMPILER DESIGN

Subject Code : BTCS-601-18

M.Code : 79249

Date of Examination : 12-12-2022

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

Write briefly :

1. a. Token

    b. DFA

    c. Augmented Grammar

    d. Preprocessor

    e. Loop Optimization

    f. DAG

    g. Parse tree

    h. Parsing Table

    i. Symbol Table

    j. Heap

SECTION-B

2. Explain the role of lexical analyzer.

3. Perform predictive paring cm following grammar

$$E \rightarrow TE'$$

$$E1 \rightarrow +TE' \mid \varepsilon$$

$$T \rightarrow FT'$$

$$T' \rightarrow *FT' \mid \varepsilon$$

$$F \rightarrow id \mid (E)$$

$* \varepsilon$ denotes epsilon

4. Explain the role of basic blocks with the use of a suitable example.

5. Discuss issues of code generation in compiler design.

6. Write a note on Lex.

SECTION-C

7. Write a note on peephole optimization.

8. What is a directed acyclic graph? Discuss the procedure for construction of a directed acyclic graph with suitable example.

9. How three address code is implemented in compiler? Explain in detail.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.