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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 parsing on following grammar

$$E \rightarrow TE'$$

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

$$T \rightarrow FT'$$

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

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

* ε 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.