BACHELOR OF TECHNOLOGY (CBCS) (2021-COURSE)

B. Tech. Sem - V COMPUTER SCIENCE & ENGINEERING AI&ML : WINTER : 2023

SUBJECT : COMPILER CONSTRUCTION

Day : Tuesday | Time : 02:30 PM-05:30 PM

Date : 12/12/2023 | **W-23962-2023** | Max. Marks : 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat labelled diagrams **WHEREVER** necessary.

Q.1 Explain with an example how to convert high level language code to machine level language code. **(10)**

OR

Q.1 Explain in detail various specification and recognition of tokens in Lexical Analysis.

Q.2 Differentiate the following parsing methods **(10)**
i) SLR Parser ii) LR Parser iii) LALR Parser

OR

Q.2 Define Top-Down Parser? Explain any one Top-down parser in detail. **(10)**

Q.3 Explain with an example various application of SDT. **(10)**

OR

Q.3 Explain in detail implementation of S attributed SDD. **(10)**

Q.4 Explain in detail translation of expression of for loop, while loop with suitable SDD. **(10)**

OR

Q.4 Explain in detail translation of expression of switch case statement, if else statement with suitable SDD. **(10)**

Q.5 Explain with example DAG representation of Basic Blocks. Write algorithm for same. **(10)**

OR

Q.5 Write short note on –optimization of basic blocks. **(10)**

Q.6 Explain Register allocation and assignment allocation with suitable example. **(10)**

OR

Q.6 Explain in detail algorithm for simple code generator. **(10)**

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