

BACHELOR OF TECHNOLOGY (CBCS) (2014 COURSE)
Information Technology
B.Tech.Sem - VII :SUMMER : 2023
SUBJECT : COMPILER CONSTRUCTION & DESIGN

Day : Tuesday

Time : 02:30 PM-05:30 PM

Date : 09-05-2023

S-13427-2023

Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labeled diagram **WHEREVER** necessary.
 - 4) Assume suitable data if necessary.
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Q.1 Describe the different phases of compiler in detail with any one example. [10]

OR

Q.1 Explain preprocessor and assembler in detail. [10]

Q.2 Differentiate between top-down parsing and bottom-up parsing. [10]

OR

Q.2 Translate the arithmetic expression $a * (b + c)$ into syntax tree. Explain the ambiguous grammar. [10]

Q.3 What are the compiler construction tools? Explain in detail. [10]

OR

Q.3 Explain in detail space allocation at compiler time. [10]

Q.4 Explain the dynamic programming code generation algorithm with example. [10]

OR

Q.4 What do you mean by code optimization? Explain the basic blocks and their optimization. [10]

Q.5 What are the generic issues in the design of code generators? Explain in detail. [10]

OR

Q.5 Explain the principle sources of code optimization with example. [10]

Q.6 Discuss the issues in design of simple code generator. [10]

OR

Q.6 Explain in detail global data flow analysis. [10]

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