

22P338

(Pages: 2)

Name: .....

Reg.No: .....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2023**

(CBCSS - PG)

(Regular/Supplementary/Improvement)

**CC19P CSS3 C13 - PRINCIPLES OF COMPILERS**

(Computer Science)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

**Part-A**

Answer any *four* questions. Each question carries 2 weightage.

1. Explain conversion of NFA to DFA.
2. Explain associativity and precedence of operators.
3. Discuss handle pruning.
4. Describe Static Simple Assignment form.
5. Explain Locality in programs.
6. Explain Loop optimization.
7. Explain Transfer functions.

**(4 × 2 = 8 Weightage)**

**Part-B**

Answer any *four* questions. Each question carries 3 weightage.

8. Illustrate about compiler construction tools.
9. Discuss about error handling and recovery.
10. Discuss about recursive predictive parsing.
11. Describe Rules for Type checking.
12. Illustrate the static versus dynamic storage allocation.
13. Illustrate heap management.
14. Explain issues in the design of a code generator.

**(4 × 3 = 12 Weightage)**

**Part-C**

Answer any *two* questions. Each question carries 5 weightage.

15. Explain lexical analysis and role of lexical analyser.

16. Examine whether the below grammar is LL(1) or not?  $S \rightarrow A A \rightarrow aB / Ad B \rightarrow b C \rightarrow g$ .
17. Discuss control flow.
18. Discuss static allocation in code generation.

**(2 × 5 = 10 Weightage)**

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