

D 102137

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Name.....

Reg. No.....

**SECOND SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY)
EXAMINATION, APRIL 2024**

(CBCSS)

Computer Science

CSS 2C 06—DESIGN AND ANALYSIS OF ALGORITHM

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

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

1. Mention the methods to express an algorithm.
2. Define string matching.
3. Give a note on Little O notation.
4. What is NP completeness ?
5. Difference between serial processing and parallel processing.
6. Write an algorithm for sequencing control structure.
7. Define Efficiency and scalability in parallel algorithm.

(4 × 2 = 8 weightage)

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

8. Define sorting and mention its types.
9. Write a note on sum of subsets of problem.
10. Mention the importance of algorithm analysis.
11. How to solve recurrences in substitution method ?

Turn over

12. Illustrate P versus NP problem.
13. What is complexity ? Mention its types.
14. Discuss in detail about Prim's algorithm.

(4 × 3 = 12 weightage)

Section C

*Answer any **two** questions.*

Each question carries 5 weightage.

15. Explain graph problem with suitable example.
16. Write a detailed note on divide and conquer approach.
17. Describe about Big O and Big Omega asymptotic notation.
18. Discuss the time complexity of parallel algorithm.

(2 × 5 = 10 weightage)