

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)

Chromepet, Chennai - 600 044.

M.Sc. Computer Science- END SEMESTER EXAMINATIONS - APRIL 2025

SEMESTER - II

23PCSCT2004 - Design and Analysis of Algorithms

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Illustrate the Steps in Towers of Hanoi puzzle.
2. Describe the methods for the Performance Analysis of an Algorithm.
3. Prepare the steps for Selection Sort.
4. Explain Multistage Graphs.
5. Interpret the Function to compute lengths of Shortest paths.
6. Prepare the Algorithm Steps in Informal Knapsack Algorithm.
7. Describe Hamiltonian Cycles.
8. Examine the Steps and the Applications of Travelling Salesman Problem.

Section C

I - Answer any **TWO** questions ($2 \times 10 = 20$ Marks)

9. Illustrate the Steps in MaxMin Algorithm.
10. Predict the various methods in solving Job Sequencing with Deadlines.
11. Examine the Steps in BFS and DFS.
12. Assess the Steps to Solve the 8 Queens Problem.

II - Compulsory question ($1 \times 10 = 10$ Marks)

13. Differentiate any two sorting algorithms and their complexity.
