

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.

B.Sc. END SEMESTER EXAMINATION APRIL/NOV - 2021

SEMESTER - V

15UCSCT5006 & UCS/CT/5006 - Operating Systems

Total Duration : 3 Hrs	Total Marks : 75
MCQ : 30 Mins	MCQ : 15
Descriptive : 2 Hrs.30 Mins	Descriptive : 60

Section B

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

1. Explain multithreading models.
2. Briefly explain critical section problem.
3. Write a note on Demand Paging.
4. Explain semaphores and write a short note on it.
5. Write the difference between paging and segmentation.
6. Write a note on file management systems.
7. Explain FIFO page and LRU page replacements.
8. Describe any five criteria for process scheduling.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Explain the various CPU scheduling algorithms in detail.
10. Discuss the Banker's algorithm for deadlock avoidance in detail.
11. Explain various file access methods.
12. Explain in detail the concept of segmentation with a neat diagram.
13. Differentiate between protection and security in file system. How they are implemented?