

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.C.A. - END SEMESTER EXAMINATIONS APRIL-2023

SEMESTER - IV

**20UACT4006 - Operating Systems**

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

### **Section B**

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

1. Explain different operating system structures with neat sketch.
2. State critical section problem? Discuss three solutions to solve the critical section problem.
3. Classify the binding of instructions and data to memory addresses.
4. Describe thrashing and explain the methods to avoid thrash
5. Describe the components of LINUX system.
6. Relate the paging and segmentation schemes.
7. Illustrate how recovery from deadlock.
8. Organize the various methods of implementation of access matrix.

### **Section C**

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

9. Explain CPU Scheduling Algorithms with examples.
10. Compute in detail about deadlock avoidance and Bankers algorithm.
11. Examine about Swapping.
12. Relate the LRU and FIFO page replacement techniques.
13. Examine detail the memory management in LINUX system.

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