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.

BCA. END SEMESTER EXAMINATIONS NOVEMBER-2022 SEMESTER - IV

20UCACT4006 - Operating Systems

Total Duration: 2 Hrs 30 Mins. Total Marks: 60

Section A

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

- 1. What are the various objectives and functions of Operating systems?
- 2. Explain about system calls.
- 3. Predict how semaphore can be used to solve critical section problem.
- 4. Illustrate about various Methods for handling Deadlocks.
- 5. Explain the steps involved in handling a page fault.
- 6. Classify the logical address and physical address.
- 7. Describe in detail about virtual memory and its advantages.
- 8. Determine the role of linux kernel in linux OS.

Section B

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

- 9. Describe the various CPU scheduling algorithms .
- 10. Classify deadlock prevention methods in detail.
- 11. Examine the basic concepts of segmentation in detail.
- 12. Apply the various Page Replacement Algorithms used for Page Replacement.
- 13. Evaluate the system memory management function in Linux.

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