K25U 0816

Reg. No. : .....

Name : .....

IV Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/ Improvement) Examination, April 2025
(2019 to 2023 Admissions)
GENERAL AWARENESS COURSE IN COMPUTER SCIENCE
4A14CSC : Operating Systems

Time : 3 Hours Max. Marks : 40

PART – A

(Short Answer)

Answer **all** questions. **(6×1=6)**

1. What is an operating system ?
2. Define system calls.
3. What is CPU scheduling ?
4. Define deadlock.
5. What is paging ?
6. Explain the concept of demand paging.

PART – B

(Short Essay)

Answer **any 6** questions. **(6×2=12)**

7. Describe different types of system calls.
8. Explain system booting steps.
9. Compare preemptive and non-preemptive scheduling.
10. What are scheduling queues ?

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11. Explain necessary conditions for deadlock.
12. What is deadlock prevention ?
13. Explain segmentation and its advantages.
14. Describe FIFO page replacement.

PART – C

(Essay)

Answer **any 4** questions. **(4×3=12)**

15. Compare monolithic, layered and microkernel OS structures.
16. Describe Round Robin scheduling with an example.
17. Explain the Banker's Algorithm for deadlock avoidance.
18. Discuss various page replacement algorithms.
19. Describe different types of memory allocation strategies.
20. Explain different deadlock recovery techniques.

PART – D

(Long Essay)

Answer **any 2** questions. **(2×5=10)**

21. Discuss different types of OS and its features.
22. Compare CPU scheduling algorithms with examples.
23. Explain deadlock detection and handling mechanisms.
24. Describe various disk scheduling algorithms.

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