3/3/23

D6BCA2002

Reg.No.............................

Name: ....

SIXTH SEMESTER UG DEGREE EXAMINATION, APRIL 2023

(Regular/Improvement/Supplementary)

BCA

GBCA6B12T: OPERATING SYSTEMS

Time: 2 Hours   Maximum Marks: 60

SECTION A: Answer the following questions. Each carries *two* marks.
(Ceiling 20 Marks)

1. Explain Operating System as a Resource Manager.

2. Give a note on linkers and loaders.

3. Comment on Belady's anomaly.

4. Define deadlock and the various methods adopted for the prevention of deadlock.

5. Briefly explain the commands for navigating Linux file systems.

6. Explain physical and logical address spaces.

7. Give an example for the implementation of overlays by the Operating System.

8. What is thrashing?

9. Briefly explain the conditions that cause external fragmentation.

10. Explain demand paging.

11. Give a brief note on inter-process communication.

12. Write an account on free space management.

SECTION B: Answer the following questions. Each carries *five* marks
(Ceiling 30 Marks)

13. Explain Banker's algorithm for deadlock avoidance.

14. Give a note on Paging and Segmentation.

15. Briefly explain the architecture of mobile operating systems.

16. Give a note on various concurrency principles adopted by Operating System.

17. Explain Dining Philosopher problem with suitable example.

18. What is virtual memory? Discuss its implementation.

19. Discuss the different types of operating systems.

SECTION C: Answer any *one* question. Each carries *ten* marks.

20. Explain various CPU scheduling algorithms in uniprocessor systems.

21. Describe page replacement algorithms with suitable examples.

                                                                 (1× 10 = 10 Marks)