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Reg. No. : .....

Name : .....

Fifth Semester B.Tech. Degree Examination, November 2011
(2008 Scheme)
Branch : INFORMATION TECHNOLOGY
08.505 : Operating Systems (F)

Time : 3 Hours Max. Marks : 100

PART – A

Answer **all** questions :

1. What is a real time OS ? Give an example for a real time OS.
2. Compare symmetric multiprocessing and asymmetric multiprocessing.
3. What are file attributes ?
4. What is meant by mounting of a file system ?
5. What do you mean by external fragmentation ?
6. Explain dynamic linking and dynamic loading.
7. What is an access matrix ?
8. Explain the necessary conditions for the occurrence of a deadlock.
9. What do you mean by sector queueing ?
10. What is Belady's anomaly ? **(10×4=40 Marks)**

PART – B

Module – 1

11. What is a batch OS ? Explain how spooling led to multiprogramming. **20**

OR

12. Compare linked file allocation method with indexed allocation method. Explain. **20**

P.T.O.

Module – 2

13. a) What are semaphores ? 5

    b) Write a semaphore-based solution to the Dining Philosophers' problem. 15

OR

14. a) Explain the hardware support for implementing demand paging. 12

    b) Explain segmentation with paging. 8

Module – 3

15. a) Discuss the different disk scheduling algorithms. 1(

    b) What are device drivers ? Explain their design. 10

OR

16. a) Explain Banker's algorithm with an example. 12

    b) Explain why is it inefficient to use the banker's algorithm. 8

(3×20=60 Marks)
