

**III B.Tech II Semester Supplementary Examinations, April/May 2005**  
**COMPUTER OPERATING SYSTEMS**  
**(Electronics & Communication Engineering)**

**Time: 3 hours**

**Max Marks: 70**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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1. (a) Differentiate uniprogramming and multiprogramming. Explain the advantages of multiprogramming.  
(b) List and explain file system functions.
2. (a) With the help of a diagram, explain the function of different types of schedulers. List different processor scheduling levels.  
(b) How do you evaluate a scheduling Algorithm? Explain multiprocessor scheduling.
3. (a) What is Demand Paging? Compare paging with segmentation.  
(b) Define thrashing. Explain any 2 page replacement algorithms with examples.
4. (a) What is a deadlock? Explain the conditions for occurrence of a deadlock.  
(b) List various approaches for handling deadlocks. Explain Banker's algorithm.
5. (a) List types of files. Describe capability lists.  
(b) Differentiate Access matrix and access list methods of protection.
6. What is language based protection? Explain the goals and domains of protection and the problems that arise during protection.
7. (a) What is virtual memory? Explain paged segmentation.  
(b) What happens when a dead lock occurs? Explain. How do you recover from a deadlock?
8. Write short notes on any THREE if the following:
  - (a) Process states
  - (b) Resident monitor
  - (c) Directory systems
  - (d) Virtual mechanics
  - (e) Monitors.

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