

46-06-516.

Code No.: 6114

**FACULTY OF SCIENCE**  
**M.Sc. I Semester Examination, May 2006**  
**COMPUTER SCIENCE**  
**Paper 1.2**  
(Modern Operating System)

Time : 3 Hours]

[Max. Marks : 100

Answer **all** questions.

**Section A** - (Marks:  $8 \times 5 = 40$ )

1. What is interprocess communication? Explain in brief.
2. Explain methods of handling deadlocks. *7/20/06*
3. What is thrashing?
4. Discuss briefly about acyclic-graph directory structure.
5. What are goals of protection?
6. What are voting protocols?
7. Explain commands associated with network management.
8. Give commands for scheduling process.

**Section B** - (Marks:  $4 \times 15 = 60$ )

9. (a) Explain any two CPU scheduling algorithms with an example.  
Or  
(b) Explain in detail how deadlock can be avoided.
10. (a) What is paging scheme. Explain its hardware implementation.  
Or  
(b) Explain (i) Disk management. (ii) Swap-space management.
11. (a) Explain file system concepts in UNIX.  
Or  
(b) Explain (i) commit protocols (ii) Fault tolerance.
12. (a) Discuss various commands related to user management in UNIX.  
Or  
(b) Discuss various security management techniques in Linux.