UNIT-III

5. a) Describe the Paging hardware and the working of paging 6
   b) Explain
      i) Shared pages
      ii) Translation look aside buffer used with paging 6

OR

6. a) Explain the working of demand Paging 6
   b) Explain LRU (least recently used) Page replacement with an example 6

UNIT-IV

7. a) Explain the four necessary conditions for dead lock occurrence 6
   b) Explain the Banker's algorithm for dead lock avoidance 6

OR

8. a) Describe the two methods for recovering from deadlocks 6
   b) Explain
      i) Tree structured directory ii) Acyclic-graph directory 6

UNIT-V

9. a) Describe
      i) Linked Allocation
      ii) Indexed Allocation methods of disk space 6
   b) Explain any two techniques for Free-space management 6

OR

10. a) Explain shortest-seek-time-first algorithm for Disk scheduling 6
    b) Explain two methods of implementing Directory 6

[A-11]

[EURCS 404/EURIT 404]
B.Tech. DEGREE EXAMINATION

CSE & IT
IV SEMESTER

OPERATING SYSTEMS
(Effective from the admitted batch 2007–08)

Time: 3 Hours **Max.Marks: 60**

Instructions: Each Unit carries 12 marks.
Answer all units choosing one question from each unit.
All parts of the unit must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

UNIT-I

1. a) Explain and compare Batch and Time sharing operating systems 6
   b) Explain the concept of threads 6

OR

2. a) Describe
      i) Shortest Job First scheduling
      ii) Priority scheduling 6
   b) Explain the scheduling criteria 6

UNIT-II

3. a) Explain the critical section problem and describe the Peterson's solution for the same 6
   b) Explain the Readers-Writers synchronization problem and describe the solution using semaphores 6

OR

4. a) Explain the structure and syntax of a monitor 6
   b) Give a solution to the classic five dining philosopher's problem using monitor 6