

UNIT-III

5. Explain in detail the different ways of organizing page table in paging with examples 12

OR

6. a) Explain Belady anomaly 5
b) Discuss the design issues involved in paging system 7

UNIT-IV

7. a) A system has four processes and five allocatable resources. The current allocation and maximum needs are as follows

	Allocated	Maximum	Available
Process A	10211	11213	00x11
Process B	20110	22210	
Process C	11010	21310	
Process D	11110	11221	

What is the smallest value of x for which this is a safe state? 5

- b) Discuss the recovery mechanisms for deadlock 7

OR

8. a) Explain condition for deadlock 4
b) Discuss deadlock detection with multiple resources 4
c) Write a short note on Banker's algorithm 4

UNIT-V

9. Discuss the following file system 12
a) Windows 98 b) UNIX 7

OR

10. Write short notes on the following: 12
a) Trojan horses b) Buffer overflow
c) Trap door d) Design principles of security

[3,7/IV S/112]

[April-12]

**[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

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|--|---|
| 1. a) List some differences between Personal Operating System and Mainframe Operating System | 6 |
| b) Explain the difference between block special and character special file | 6 |

OR

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|---|----|
| 2. Explain in detail the system calls in Unix for the following | 12 |
| a) Process Management b) File Management | |
| c) Directory Management d) File & System Management | |

UNIT-II

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|---|---|
| 3. a) Define Monitor | 4 |
| b) Explain the solution for producer consumer problem using Semaphore and Monitor | 8 |

OR

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|---|---|
| 4. a) Discuss the design issues in Message Passing system | 4 |
| b) Give the solution of Reader – Writers Problem | 8 |