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2005 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

III B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS
COMPUTER OPERATING SYSTEMS
(ELECTRONIC & CONTROL ENGINEERING)

NOVEMBER 2005

TIME – 3 HOUR
MARK – 80

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain operating system services.

(b) compare different directory systems. *[8+8]*

2. (a) What is system call? categorize different system calls.

(b) Explain the fields of process control block.

(c) Differentiate different schedulers. *[5+5+6]*

3. (a) Explain difference between internal and external fragmentation.

(b) Which type of fragmentation do you observe in segmentation method of memory management.

(c) Explain inverted paging method of memory management. *[5+5+6]*

4. (a) Explain banker's algorithm for deadlock detection.

(b) What are the criteria for a deadlock to occur. *[8+8]*

5. (a) Discuss different page replacement policies with examples.

(b) Given the following page reference string assuming 3 frames, how many page faults would occure for the LRU page replacement algorithm 7 0 1 2 0 3 0 4 2 3 0 3 2 1 2 0 1 7 0 1 *[8+8]*

6. Explain paging method of memory management *[16]*

7. Present a solution for critical section problem using n processes. Explain how it meets the requirements a critical section problem solution must satisfy. *[16]*

8. Write notes on:

(a) thrashing

(b) Spooling *[8+8]*