

DEPARTMENT: COMPUTER SCIENCE & ENGINEERING

SEMESTER: 4

SUBJECT NAME: Operating System

SUBJECT CODE: 3140702

FACULTY NAME: PROF. FORAM PATEL

OPERATING SYSTEM

Assignment: 2

- 1. What do you mean by Deadlock Avoidance? Explain the use of Banker's Algorithm for Deadlock Avoidance with illustration.
- 2. Explain deadlock prevention.
- 3. Suppose that a disk drive has 1000 cylinders, numbered 0 to 999. Assume last request received was at track 345 and the head is moving towards track 0. The queue of pending requests, in FIFO order, is 123,874,692,475,105,367.

Perform following scheduling algorithm.FIFO, SSTF, SCAN, LOOK, C-SCAN and C-LOOK.

- 4. Explain Direct Memory Access (DMA).
- 5. What is segmentation? Explain it with example.
- 6. For the Page Reference String:
 7, 0, 1, 2, 0, 3, 0, 4, 2, 3, 0, 3, 2, 1, 2, 0,1,7, 0, 1
 Calculate the Page Faults applying (i) Optimal (ii) LRU and (iii) FIFO Page Replacement Algorithms for a Memory with three frames.

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