

**Institute of Engineering Science and Technology, Shibpur.
IT Department , Session 2018 July-Dec**

OPERATING SYSTEM LABORATORY 2018

Assignment – 4

Shared Memory

Submission Date: 07.09.2018 (For problem 1 and 2) and 21.09.2018 (For problem 3 and 4)

1. Create a process P1, In P1, create a shared memory SM1, Similarly in process P2, create a shared memory SM2.
P1 writes on SM1 and P2 reads from SM1.
P2 writes on SM2 and P1 reads from SM2.
Thus, user of P1 can communicate with the user of P2, like in a messenger program.
2. Implement the solution of the Bounded Buffer Producer Consumer problem using Semaphores.
3. Provide the solution for the Dining Philosopher's problem using semaphores.
4. Implement the solution of Reader's priority Readers-Writers problem.