

## संगणक विज्ञान एवं अभियांत्रिकी विभाग

मोतीलाल नेहरू राष्ट्रीय प्रौद्योगिकी संस्थान इलाहाबाद इलाहाबाद—211004 (भारत)

## Department of Computer Science & Engineering Motilal Nehru National Institute of Technology Allahabad Allahabad - 211 004 (India)

Class: B.Tech.-7<sup>th</sup> Semester
Subject: Distributed System Lab (CS-17201)

## **ASSIGNMENT-2**

- 1. Suppose there exists a file and you have to read, write and update the file concurrently.
- (i) Write a multithreaded program such that, there should be different threads for all different tasks and each thread access the file synchronously. Note: Use Mutex (ii)Write a program to implement a deadlock scenario, in which two threads are accessing two resources concurrently.
- (iii)Write a program to implement for deadlock avoidance using conditional locking in which two threads are accessing two resources concurrently. Note: userpthread\_mutex\_trylock() function for conational locking.