CS331: SYSTEM SOFTWARE LAB
LAB SCHEDULE

LIST OF PROGRAMS:

CYCLE 1: OPERATING SYSTEM CONCEPTS – 30 marks (5 marks for each program , if completed on or before the specified date.)

1) Simulate the following non-preemptive CPU scheduling algorithms to find turnaround time and waiting time. a) FCFS b) SJF c) Round Robin (pre-emptive) d) Priority
(Last date for completion: 7/8/17)
2) Simulate the following file organization techniques a) Single level directory b) Two level directory c) Hierarchical (Last date for completion: 11/8/17)
3) Implement the banker's algorithm for deadlock avoidance. (Last date for completion: 18/8/17)
4) Simulate the following disk scheduling algorithms. a) FCFS b)SCAN c) C-SCAN
(Last date for completion: 25/8/17)
5) Implement the producer-consumer problem using semaphores. (Last date for completion: 30/8/17)
6) Write a program to simulate the working of the dining philosopher's problem.
(Last date for completion: 13/9/17)

CYCLE 2: ASSEMBLERS, LOADERS and MACROPROCESORS – 30 marks (5 marks for each program, if completed on or before the specified date.)

1) Implement pass one of a two pass assembler. (Last date for completion: 20/9/17)
2) Implement pass two of a two pass assembler. (Last date for completion: 4/10/17)
3) Implement a single pass assembler. (Last date for completion: 13/10/17)
4) Implement a two pass macro processor (Last date for completion: 25/10/17)
5) Implement an absolute loader.(Last date for completion: 1/11/17)
6) Implement a symbol table with suitable hashing.(Last date for completion: 15/11/17)

* Half the marks will be reduced for late completion of a program. The program will not be evaluated if submitted later than 1 week from the date for submission, without valid reason.