

## **CSL204 OPERATING SYSTEMS LAB**

1. Basic Linux commands
2. Shell programming
  - Command syntax
  - Write simple functions with basic tests, loops, patterns
  - a)Odd or Even
  - b)Greatest of three numbers
  - c)Leap year
  - d)Print inverted pyramid
  - e)Fibonacci series
  - f)Calculator
3. System calls of Linux operating system: \*--fork, exec, getpid, exit, wait, close, stat, opendir, readdir
4. Implement programs for Inter Process Communication using Shared Memory \*
5. Write a C program to simulate producer-consumer problem using semaphores.\*
6. Write a C program to simulate following non-preemptive CPU scheduling algorithms to find turnaround time and waiting time.
  - a) Round Robin b) SJF c) FCFS d)Priority \*
7. Given the list of processes, their CPU burst times and arrival times, display/print the
  - Gantt chart for FCFS and SJF. For each of the scheduling policies, compute and print the
  - average waiting time and average turnaround time
8. Write a C program to simulate following contiguous memory allocation techniques\*
  - a) First Fit b) Worst Fit c) Best Fit
9. Implement page replacement algorithms
  - a) FIFO b) LRU c) LFU\*
10. Implement the banker's algorithm for deadlock avoidance. \*
11. Simulate disk scheduling algorithms. \*
  - c) FCFS b)SCAN c) C-SCAN