Assignment 6

1. Write a C program to simulate the following non-preemptive CPU scheduling algorithms to find turnaround time and waiting time. a) FCFS b) SJF c) Round Robin d) Priority
2. Write a C program to simulate the following contiguous memory allocation techniques a) Worst-fit b) Best-fit c) First-fit
3. Write a C program to simulate Bankers algorithm for the purpose of deadlock avoidance.

Home Assignment

4. (a) Write a C program to implement round robin CPU scheduling algorithm for the following given scenario. All the processes in the system are divided into two categories – system processes and user processes. System processes are to be given higher priority than user processes. Consider the time quantum size for the system processes and user processes to be 5 msec and 2 msec respectively.
   (b) Write a C program to simulate pre-emptive SJF CPU scheduling algorithm.

Assignment 7

1. Write a C program to simulate page replacement algorithms
   a) FIFO
   b) LRU
   c) LFU

Assignment 8

1. Write a C program to simulate disk scheduling algorithms a) FCFS b) SCAN c) C-SCAN
2. Write a C program to simulate producer-consumer problem using semaphores.