Assignment-6

CS342: Operating System Lab

General Instruction

• Assignments should be completed and evaluated in the Lab session.

• Markings will be based on the correctness and soundness of the outputs. Marks will bededucted in case of plagiarism.

• The assignments must be written in C language. Proper indentation & appropriate comments(if necessary) are mandatory in the code.

In today's lab the goal is to implement different scheduling algorithms. After the completion of the lab you will get a better understanding of how different scheduling algorithms work.

Question 1. Given 4 processes with their burst times and arrival times, the task is to write a program to find the average waiting time and an average turn around time using FCFS scheduling algorithm.

Process	Burst Time	Arrival Time
P1	5 ms	0
P2	3 ms	1
P3	8 ms	2
P4	6 ms	3

Question 2. Consider the following table of arrival time and burst time for five processes P1,P2,P3,P4 and P5. The task is to write a program to find the average waiting time and average turn around time using Shortest Job First (SJF) scheduling algorithm.

Process	Burst Time	Arrival Time
P1	6 ms	2 ms
P2	2 ms	5 ms
P3	8 ms	1 ms
P4	3 ms	0 ms
P5	4 ms	4 ms

Question 3. Consider the following table of arrival time and burst time for five processes P1, P2, P3, P4 and P5. The task is to write a program using signals to find the average waiting time and an average turn around time using Shortest Remaining Time First (SRTF) scheduling algorithm. (Preemptive Shortest Job First CPU Scheduling Algorithm)

Process	Burst Time	Arrival Time
P1	6 ms	2 ms
P2	2 ms	5 ms
P3	8 ms	1 ms
P4	3 ms	0 ms
P5	4 ms	4 ms