

We assume that when a preempted process and new coming process need to be put in the ready queue at the same time, we prefer to put the preempted process in front of the new coming process in the ready queue.

1. Consider the following set of processes, with the arrival times and the length of the CPU- burst times given below. Calculate the waiting time and turnaround time, using the indicated scheduling algorithms.

FCFS

Process	Arrival time	Burst time	Waiting time	Turnaround time
P1	1	5		
P2	2	6		
P3	0	8		

SJF

Process	Arrival time	Burst time	Waiting time	Turnaround time
P1	1	5		
P2	2	3		
P3	0	4		

SRT

Process	Arrival time	Burst time	Waiting time	Turnaround time
P1	1	2		
P2	2	2		
P3	0	4		

Round Robin (Q=2)

Process	Arrival time	Burst time	Waiting time	Turnaround time
P1	1	6		
P2	2	4		
P3	0	3		

2. Consider the following set of processes, calculate the waiting time and turnaround time, using FCFS and SJF.

Process	Arrival time	Burst time
1	1	3
2	3	5
3	5	2
4	6	4

Then, do the same using the processes below and the algorithms SRT and Round Robin (Q=2).

Process	Arrival time	Burst time
1	1	3
2	3	5
3	5	4
4	6	2

3. Now consider the following set of processes. Illustrate their execution, using FCFS, SJF, SRT and Round Robin (Q=2 and Q=3). Then, calculate the waiting time and turnaround time.

Process	Arrival time	Burst time
A	0	7
B	1	3
C	2	4
D	4	2
E	6	3