Operating System and System Administration

Workshop sheet 05
Year 02 Semester 01

Department of Information Technology, Faculty of Computing

1. Given the following set of processes with their arrival times and burst times.

Process	Arrival time in milliseconds	Burst time in milliseconds
A	0	5
B	1	3
C	2	8
D	3	6

Draw a Gantt chart for First come first serve scheduling and compute the average waiting time.

2. Given the following set of processes with their arrival times and burst times.

Process	Arrival time in milliseconds	Burst time in milliseconds
A	0	5
B	1	3
C	2	8
D	3	6

Draw a Gantt chart for shortest job first scheduling and compute the average waiting time and average turnaround time.

3. Given the following set of processes with their arrival times and burst times.

Process	Arrival time in milliseconds	Burst time in milliseconds
A	0	8
B	1	3
C	5	2
D	7	3

Draw a Gantt chart for round-robin (quantum = 3 milliseconds) scheduling and compute the average waiting time.

4. Given the following set of processes with their arrival times and burst times.

Process	Arrival time in milliseconds	Burst time in milliseconds
A	0	7
B	1	5
C	5	4
D	11	3

Draw a Gantt chart for round-robin (quantum = 3 milliseconds) scheduling considering the **context switching** time as 0.1 milliseconds. Compute the average waiting time.