CPU SCHEDULING EXERCISE

1) Given these processes:

Process	Arrival Time	Burst Time
P_1	0	8
P_2	1	4
P_3	2	9
P_4	3	5

CPU scheduling: preemptive SJF. Draw Gantt chart for the scheduling and calculate average waiting time and average turnaround time.

2) Given these processes:

Process	Arrival Time	CPU_1	I/O	CPU_2
P_1	0	3	R_1 (2)	5
P_2	2	4	R_2 (2)	1
P_3	2	2	R_1 (2)	1

CPU scheduling: preemptive SJF. Resource scheduling: FIFO. Draw Gantt chart for the scheduling and calculate average waiting time and average turnaround time.

3) Given these processes:

Process	Arrival Time	CPU_1	R	CPU_2
P_1	0	5	R_1 (4)	3
P_2	3	2	R_1 (2)	2
P_3	3	3	R_2 (1)	2

CPU scheduling: RR (q=3). Resource scheduling: FIFO. Draw Gantt chart for the scheduling and calculate average waiting time and average turnaround time.

4) Given these processes:

Process	RL Arrival Time	CPU_1	I/O_1	CPU_2	I/O_2
P_1	0	8	R_1 (5)	1	
P_2	2	1	R_2 (8)	2	R_1 (5)
P_3	10	6	R_1 (5)	2	R_2 (3)
P_4	11	3	R_2 (20)		

CPU scheduling: non-preemptive SJF. Resource scheduling: FIFO. Draw Gantt chart for the scheduling and calculate the average waiting time.

5) Given these processes:

Process	System Arrival Time	RL Arrival Time	CPU_1	I/O_1	CPU_2	I/O_2	CPU_3
P_1	0	0	2	R_1 (4)	3		
P_2	1	2	6	R_2 (3)	2	R_1 (3)	2
P_3	3	3	4	R_2 (4)	2		
P_4	3	4	3	R_1 (3)	1	R_1 (3)	2

CPU scheduling: FIFO. Resource scheduling: preemptive SJF. Draw Gantt chart for the scheduling. Calculate average waiting time and average turnaround time.

6) Given these processes:

Process	System Arrival Time	RL Arrival Time	CPU1	IO1	CPU2	IO2	CPU3
P1	0	0	6	R_1 (3)	3	R_2 (4)	1
P2	1	2	3	R_2 (2)	2	R_3 (6)	3
P3	2	2	2	R_1 (3)	4	R_2 (2)	3
P4	3	5	4	R_3 (4)	3	R_1 (3)	2

CPU scheduling: preemptive SJF. Resource scheduling: FIFO. Draw Gantt chart for the scheduling and calculate the average waiting time.