Question

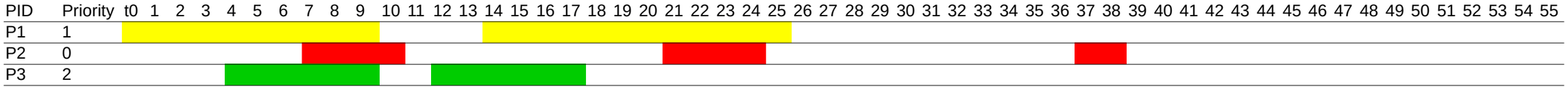
The table below describes the CPU-I/O Burst cycles for processes P1, P2 and P3. Assume 0 is the highest priority.

Process	Priority	Arrival time	CPU Burst 1	I/O Burst 1	CPU Burst 2	I/O Burst 2	CPU Burst 3
P1	1	0	10	4	12	-	-
P2	0	7	4	10	4	12	2
P3	2	4	6	2	6	-	-

(a) Draw the Gantt chart timeline, illustrating the interleaving of processes, and calculate the average waiting time for each process under

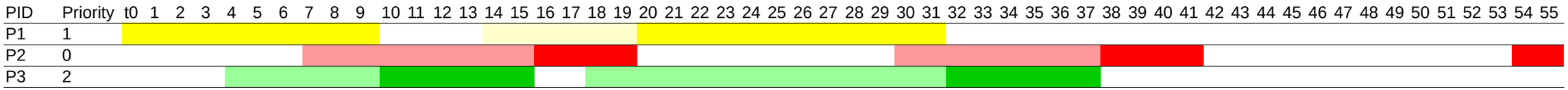
1. a non pre-emptive priority scheduling algorithm
2. a round robin scheduling algorithm with quantum = 6.

Simultaneously (No Wait)



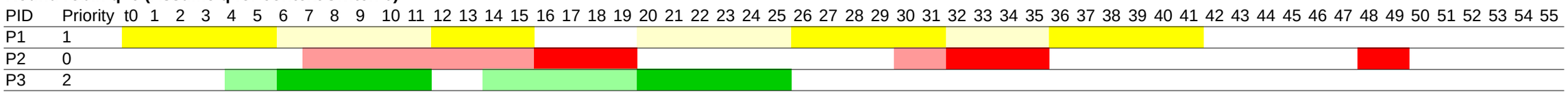
PID	Priority	End
P1	1	26
P2	0	39
P3	2	18

FCFS



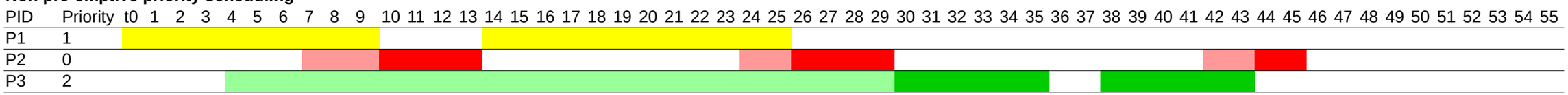
PID	Priority	End	Wait
P1	1	32	6
P2	0	56	17
P3	2	38	20
			37

Round robin q=6 (Assume q for context switch 0)



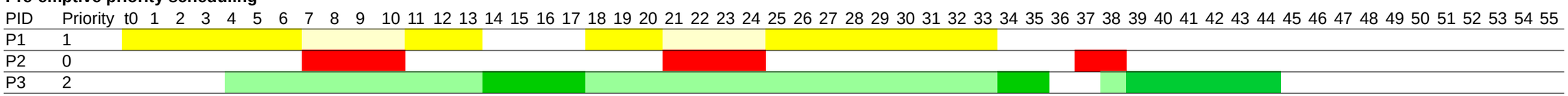
PID	Priority	End	Wait
P1	1	42	16
P2	0	50	11
P3	2	26	8
			35

Non pre-emptive priority scheduling



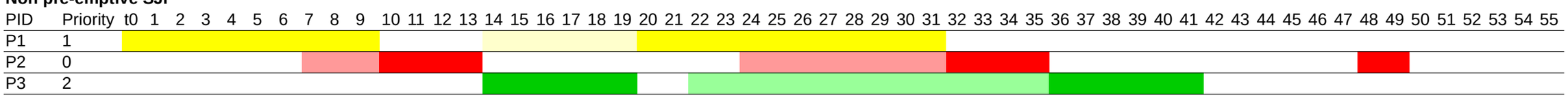
PID	Priority	End	Wait
P1	1	26	0
P2	0	46	7
P3	2	44	26
			33

Pre-emptive priority scheduling



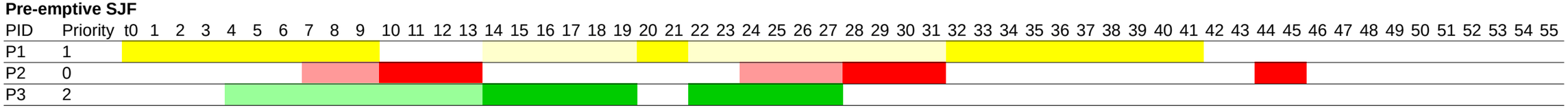
PID	Priority	End	Wait
P1	1	34	8
P2	0	39	0
P3	2	45	27
			35

Non pre-emptive SJF



PID	Priority	End	Wait
P1	1	32	6
P2	0	50	11
P3	2	42	24
			41

Pre-emptive SJF



PID	Priority	End	Wait
P1	1	42	16
P2	0	46	7
P3	2	28	10
			33