

Process id	Arrival time	Burst time	Completion time	Turnaround time	Waiting time	Response time
P1	4	5	9	5	0	0
P2	6	4	17	11	7	7
P3	0	3	3	3	0	0
P4	6	2	19	13	11	11
P5	5	4	13	8	4	4

We know,

Turnaround time = Completion time - Arrival time / Waiting time + Burst time

Waiting time = Turnaround time - Burst time

Response time = Time at which the process gets the CPU for the 1st time - Arrival time

Average waiting time =  $(0+7+0+11+4)/5 = 22/5 = 4.4$  milliseconds

Average turnaround time =  $(5+11+3+13+8)/5 = 40/5 = 8$  milliseconds

Gantt chart :

P3	CPU idle	P1	P5	P2	P4	
0	3	4	9	13	17	19