

Based on the provided information about the Shortest Job First (SJF) CPU Scheduling Algorithm, let's summarize the scheduling timeline and the execution details for the processes P1, P2, P3, P4, and P5.

Process Table

Process	Burst Time	Arrival Time	Completion Time	Turnaround Time (CT - AT)	Waiting Time (TAT - BT)	
P1	6 ms	2 ms	15 ms	$15 - 2 = 13$ ms	$13 - 6 = 7$ ms	
P2	2 ms	5 ms	7 ms	$7 - 5 = 2$ ms	$2 - 2 = 0$ ms	
P3	8 ms	1 ms	23 ms	$23 - 1 = 22$ ms	$22 - 8 = 14$ ms	
P4	3 ms	0 ms	3 ms	$3 - 0 = 3$ ms	$3 - 3 = 0$ ms	
P5	4 ms	4 ms	10 ms	$10 - 4 = 6$ ms	$6 - 4 = 2$ ms	

Gantt Chart and Execution Timeline

Time 0-3 ms: P4 executes (3 ms total)

Remaining Burst Time: P4 (0 ms), P3 (8 ms), P1 (6 ms)

Time 3-4 ms: P3 executes (1 ms)

Remaining Burst Time: P3 (7 ms), P1 (6 ms)

Time 4-5 ms: P5 arrives, but P1 has a shorter burst time than P3.

P1 executes (1 ms)

Remaining Burst Time: P3 (7 ms), P1 (5 ms), P5 (4 ms)

Time 5-6 ms: P2 arrives (2 ms burst time), but P5 has a shorter burst time.

P5 executes (1 ms)

Remaining Burst Time: P3 (7 ms), P1 (5 ms), P5 (3 ms)

Time 6-7 ms: P2 executes (2 ms)

Remaining Burst Time: P3 (7 ms), P1 (5 ms), P5 (3 ms)

Time 7-10 ms: P5 resumes execution (3 ms)

Remaining Burst Time: P3 (7 ms), P1 (5 ms), P5 (0 ms)

Time 10-15 ms: P1 executes (5 ms)

Remaining Burst Time: P3 (7 ms), P1 (0 ms)

Time 15-23 ms: P3 executes (8 ms)

Remaining Burst Time: P3 (0 ms)