

Activity 1

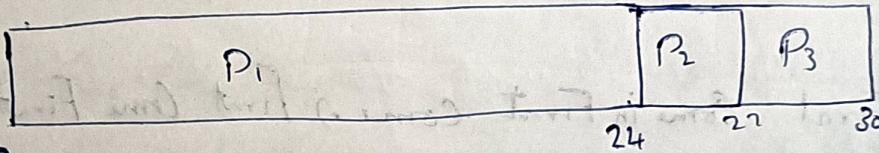
25/08/2022

First Come, First-Served Scheduling :-

- The process that requests the CPU first is allocated the CPU first.
- It is a non-Preemptive scheduling technique.
- The implementation of the FCFS Policy is easily managed with a FIFO queue.

Eg:-

Process	Burst Time
P ₁	24
P ₂	3
P ₃	3



Average Waiting time = $(0+24+27)/3 = 17\text{ms}$

Average Turnaround time = $(24+27+30)/3 = 27\text{ms}$

Shortest Job First Scheduling

Program

Burst Time

P₁

6

P₂

8

P₃

7

P₄

3

Gantt Chart

P ₄	P ₁	P ₃	P ₂
0	3	9	16

$$\text{Average waiting time} = \frac{3+16+9+0}{4}$$

$$= 7 \text{ ms}$$

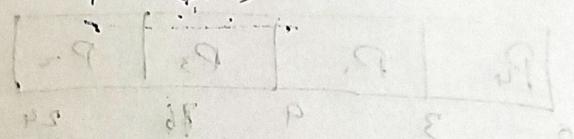
$$\text{Average Turn Around Time} = \frac{3+9+16+34}{4}$$

$$= 13 \text{ ms}$$

④ Round Robin

Program	Arrival Time	Burst Time	Completion Time			TAT	WT
			Com-Arr	OP	Time		
P ₁	0	8.75			12	12	7
P ₂	1	4.25			11	10	6
P ₃	2	2.0			6	4.0	2
P ₄	4	1.75			9	5	4
P ₅	1	1.75			10	9	8

$$T = 2 \text{ ms}$$



Ready Queue

P ₁	P ₂	P ₃	P ₄	P ₅	P ₁	P ₂	P ₁
0	1	2	3	4	5	6	7

Grantt

P ₁	P ₂	P ₃	P ₄	P ₅	P ₁	P ₂	P ₁
0	2	4	6	8	9	11	12

③ Priority Scheduling

Process	Burst Time	Priority
P ₁	10	3
P ₂	1	1
P ₃	2	4
P ₄	1	5
P ₅	5	2

P ₂	P ₅	P ₁	P ₃	P ₄
0	1	6	16	19