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Process	Arrival time	Burst time	CT	TAT	WT	RT
P1	0	16 16	32	32	11	0
P2	2	8 8	8	6	3	3
P3	4	6 6	13	17	11	4
P4	5	2	15	10	8	8

$$\boxed{\text{Avg WT} = 8.25}$$

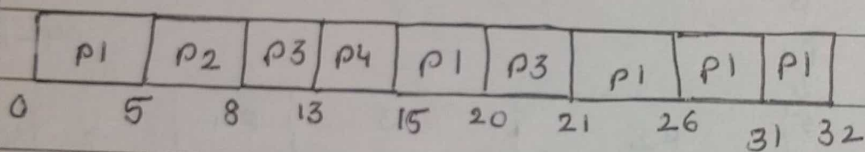
Criteria :- Time quantum / Round Robin

$$\boxed{\text{Avg TAT} = 16.25}$$

Mode :- Preemptive

Time slice / quantum = 5

→



Turnaround time = Completion time - arrival time

Waiting time = Turnaround time - burst time

Response time = First CPU allocation - arrival time

Process Arrival time Burst time

Avg TAT = 19.75 units
Avg WT = 13.75 units

P1	0	6 6 4	8 4 3 2 1
P2	2	8 8 7 6 5 4	8 6 5 4 3 2 1
P3	4	7 7 6 5 4	7 6 5 4 3 2 1
P4	5	3 3	3 2 1

P1	P1	P2	P2	P3	P2	P3	P2	P3	P1	P2	P3	P1	P2	P3	P4	P1	P2	P3	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

P4	P1	P2	P3	P4	Process	CT	TAT	WT	RT
20	21	22	23	24	P1	21	21	15	0
RT = First time CPU allocation - arrival time					P2	22	20	12	0
TAT = CT - AT					P3	23	19	12	0
WT = TAT - BT					P4	24	19	16	10

Discussion points:-

✓ Same work

$$\text{Ans } TAT = CT - AT$$

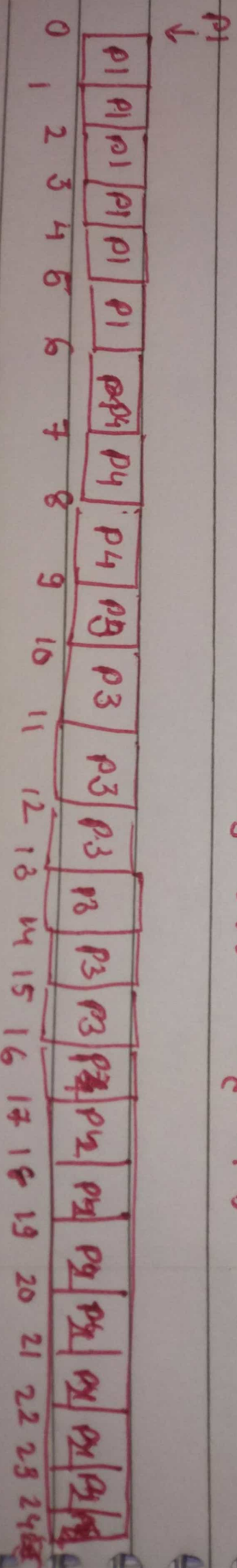
WT = ~~BA~~ TAT-6T

$RT = \text{First CPU allocation} - \text{Arrival time}$

Preemptive SJF :-

Products	Arrival time	Batch time	TAT	WT	CT	RT
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p_1	0	8 243	7	1	7	0
p_2	2	8	22	14	25 24	14
p_3	4	7 8514/320	13	6	17	5
p_4	5	8240	5	2	10	1

$$\text{Avg} = 5.75 \quad \text{Avg} = 14.5$$


Q

Process

Arrival time

Burst time

P1

0

6

P2

2

8

P3

4

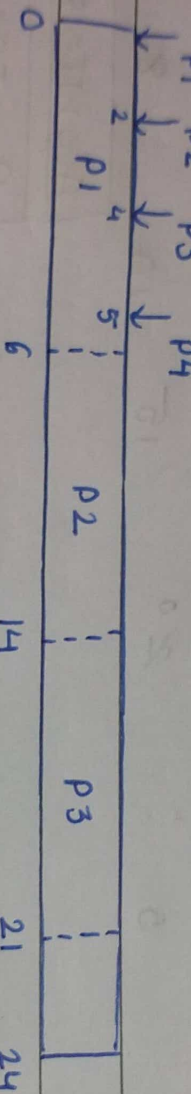
7

P4

5

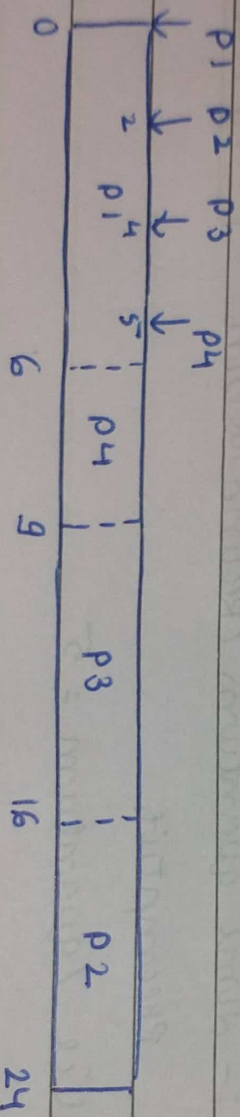
3

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→ Non-

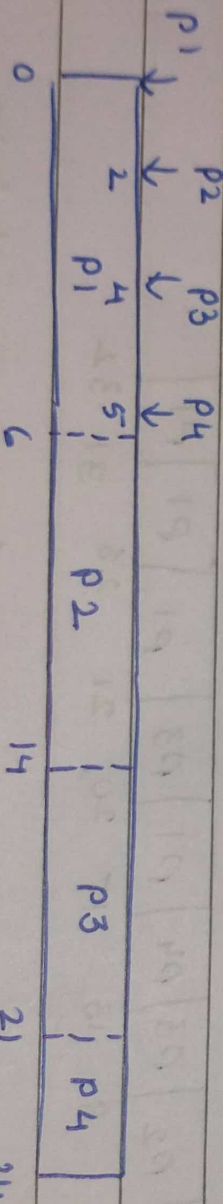
preemptive
FCFS



→ Non-preemptive

SJF

P4-P1-P3-P2



→ Non-preemptive

LJF

P2-P3-P1-P4

2)

Process

Arrival time

Burst time