

* Round Robin Scheduling

- Used in time sharing systems.
- It is pre-emptive scheduling algorithm.

Numerical

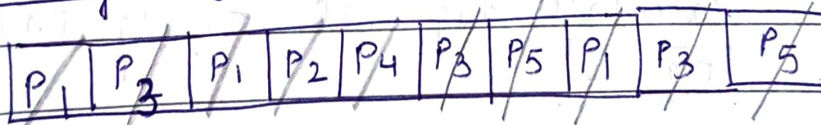
1) Process	A.T.	B.T.
✓ P ₁	0	8 5 7 0
✓ P ₂	5	2 0
✓ P ₃	1	7 4 0
✓ P ₄	6	3 0
✓ P ₅	8	5 7 0

$T_q = 3$

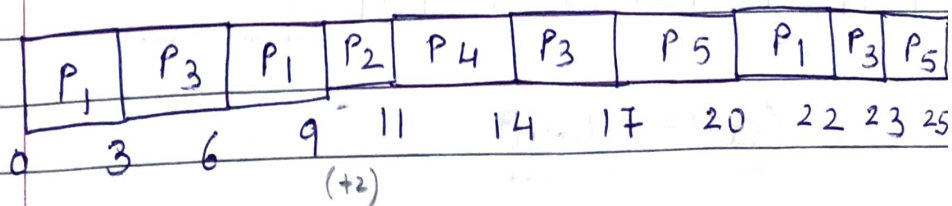
Calculate avg. waiting time & avg TAT.

→ Gantt chart

Ready queue



Gantt chart



Process	AT	B.T	C.T	TAT	WT	R.T
P ₁	0	8	22	22	14	0
P ₂	5	2	11	6	4	4
P ₃	1	7	23	22	15	2
P ₄	6	3	14	8	5	5
P ₅	8	5	25	17	12	9

$$\text{Avg WT} = 10$$

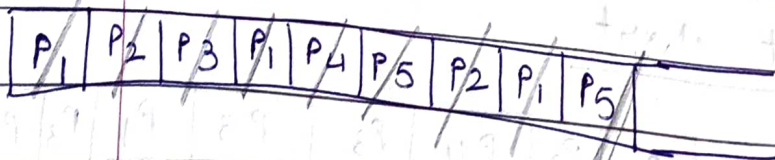
$$\text{Avg TAT} = 15$$

2) Process	AT	BT
✓ P ₁	0	5 10
✓ P ₂	1	3 0
✓ P ₃	2	1 0
✓ P ₄	3	2 0
✓ P ₅	4	3 0

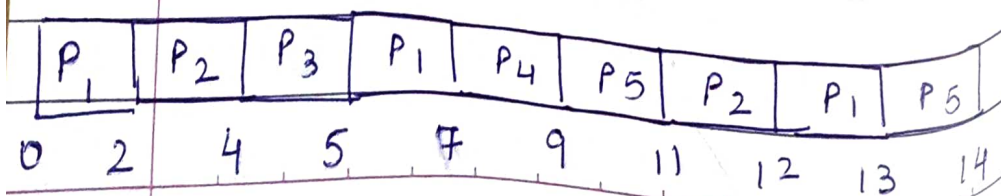
calculate avg WT & avg TAT

$$\boxed{TQ = 2}$$

→ Ready Queue



Gantt chart



Process	A.T.	B.T.	C.T.	TAT	WT	RT
P ₁	0	5	13	13	8	0
P ₂	1	3	12	11	8	1
P ₃	2	1	5	3	2	2
P ₄	3	2	9	6	4	4
P ₅	4	3	14	10	7	5

$$\text{Avg WT} = 5.8$$

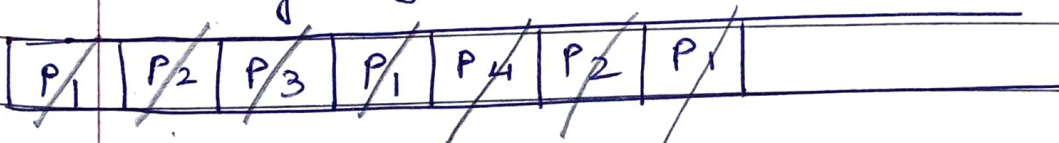
$$\text{Avg TAT} = 8.6$$

3)

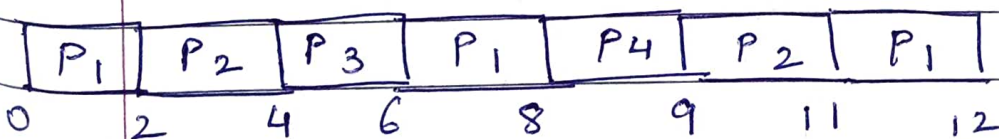
Process	A.T.	B.T.
✓ P ₁	0	5 3 1 0
✓ P ₂	1	4 2 0
✓ P ₃	2	2 0
✓ P ₄	4	1 0

cal. avg WT & avg TAT.
Tq = 2

→ Ready queue



Gantt chart



Page No.

Date

Process	A.T	B.T	CT	TAT	WT	R.T.
P ₁	0	5	12	12	7	0
P ₂	1	4	11	10	6	1
P ₃	2	2	6	4	2	2
P ₄	4	1	9	5	4	4
P ₅						

$$\text{Avg WT} = 4.75$$

$$\text{Avg TAT} = 7.75$$