* Priority Scheduling (Non-Preemptive)

→ Each process has its own priority.
→ Out of all available processes, highest priority process gets CPU.

Process	Priority	A.T.	B.T.
✓ P_1	3	0	8
P_2	4	1	2
P_3	4	3	4
P_4	5	4	1
✓ P_5	2	5	6
P_6	6	6	5
✓ P_7	1	10	1

Lesser the number higher the priority

P_1	P_5	P_7	P_2	P_3	P_4	P_6

0 (+8) 8 (+6) 14 (+1) 15 (+2) 17 (+4) 21 (+1) 22 (+5) 27

Process	A.T	B.T	Priority	C.T.	TAT	WT	RT
P_1	0	8	3	8	8	0	0
P_2	1	2	4	17	16	14	14
P_3	3	4	4	21	18	14	14
P_4	4	1	5	22	18	17	17
P_5	5	6	2	14	9	3	3
P_6	6	5	6	27	21	16	16
P_7	10	1	1	15	5	4	4

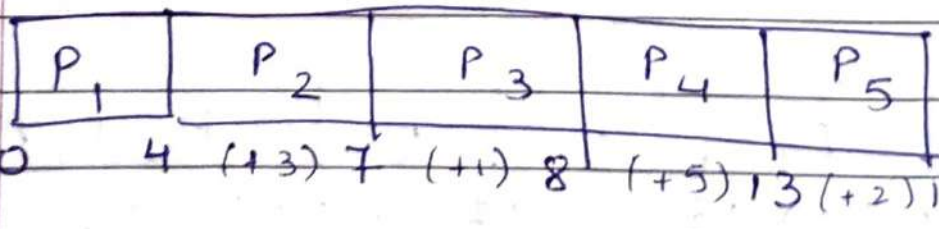
Avg WT = 9.7

Avg TAT = 13.5

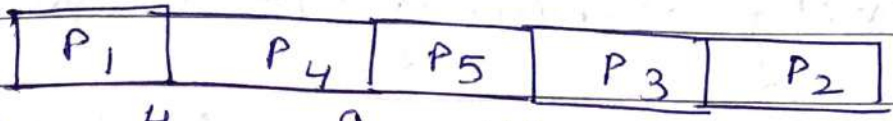
2)

Process	A.T.	B.T.	Priority
P1	0	4	2
P2	1	3	3
P3	2	1	4
P4	3	5	5
P5	4	2	5

Gantt chart



Solve above question using higher number represents higher priority.



Process	AT	BT	CT	TAT	WT	RT
P_1	0	4	4	4	0	0
P_2	1	3	15	14	11	11
P_3	2	1	12	10	9	9
P_4	3	5	9	6	1	1
P_5	4	2	11	7	5	5

Avg W.T. = 5.2

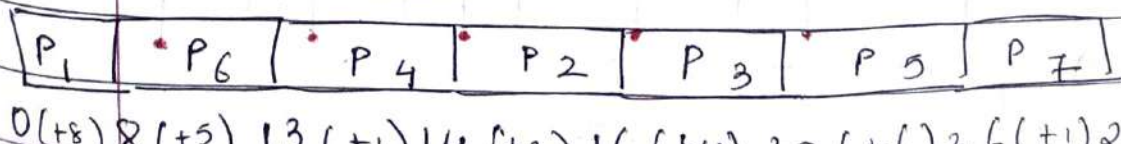
Avg TAT = 8.2

3)

Process	A.T.	B.T.	Priority
P_1	0	8	3
P_2	1	2	4
P_3	3	4	4
P_4	4	1	5
P_5	5	6	2
P_6	6	5	6
P_7	10	1	1

(higher number represents higher priority)

Gantt chart



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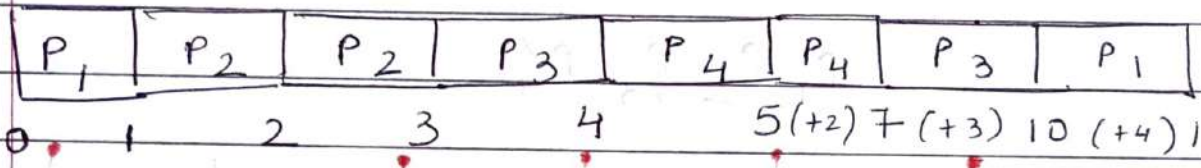
Priority Scheduling (Pre-Emptive)

1)

Process	A.T.	Priority	B.T.
P_1	0	4	~~5~~ 4
P_2	1	1	~~2~~ ~~1~~ 0
P_3	3	3	~~4~~ 3
P_4	4	2	~~2~~ 2

[Solve using Lesser the number, higher the priority]

→ Gantt chart



P_1 P_2 P_3 P_4

Process	A.T.	B.T.	C.T.	TAT	WT	R.T.
P_1	0	5	14	14	9	0
P_2	1	2	3	2	0	0
P_3	3	4	10	7	3	0
P_4	4	3	7	3	0	0

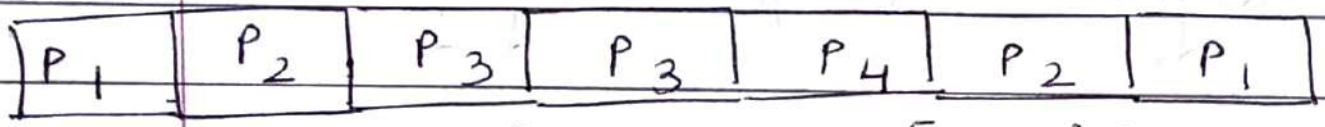
Avg WT = 3

Avg TAT = 6.5

2)

Process	A.T.	Priority	B.T.
P_1	0	10	~~5~~ 4
P_2	1	20	~~4~~ 3
P_3	2	30	~~2~~ 1 0
P_4	4	40	~~1~~ 0

Solve using higher the number, higher the priority.



P_1 P_2 P_3 P_4

Process	A.T.	B.T.	C.T	TAT	WT	RT
P_1	0	5	12	12	7	0
P_2	1	4	8	7	3	0
P_3	2	2	4	2	0	0
P_4	4	1	5	1	0	0

Avg WT = 2.5

Avg TAT = 5.5

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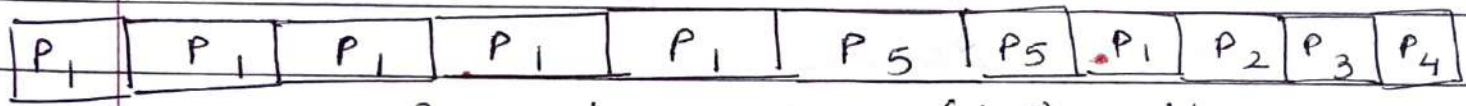
3)

Process	A.T.	B.T.	Priority
P_1	0	~~8 7 6 5 4~~ 3	3
P_2	1	2	4
P_3	3	4	4
P_4	4	1	5
P_5	5	65	~~7~~

(Lesser the number, higher the priority)



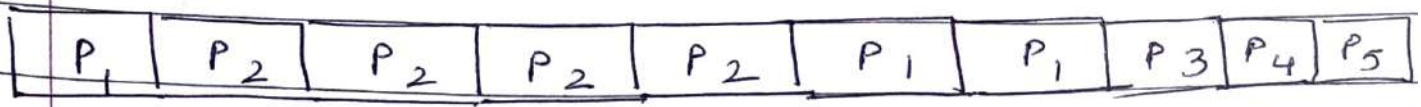
$P_1\ P_2\ P_3\ P_4\ P_5$

4)

Process	A.T.	Priority	B.T.
P_1	0	3	~~3 2~~ 1
P_2	1	2	~~4 3 2 1~~ 0
P_3	2	4	6
P_4	3	6	4
P_5	5	10	2

(Lesser No., higher priority)

Gantt chart



$P_1\ P_2\ P_3\ P_4\ P_5$

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Process	A.T.	B.T	CT	TAT	WT	R.T
P_1	0	3	7	7	4	0
P_2	1	4	5	4	0	0
P_3	2	6	13	11	5	5
P_4	3	4	17	14	10	10
P_5	5	2	19	14	12	12

Avg WT = 6.2

Avg TAT = 10