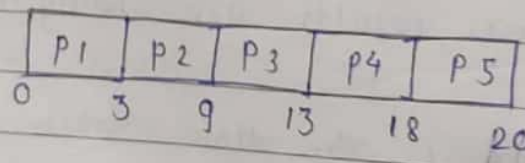
10) Solve using
a] Fc Fs b] SJF (NON- preemptive & preemptive)
c) priority (Non-preemptive & preemptive)
d] Round Robin (Time quantum = 2m) scheduling algorithm calculate average waiting time and average turnaround time.

process	A.T	B.T	priority
P1	0	3	4
P2	2	6	3
P3	4	4	1
P4	6	5	5
P5	8	2	2

→ a] FcFs (CT - AT) (TAT - B.T)

process	A.T	B.T	C.T	T.A.T	W.T
P1	0	3	3	3	0
P2	2	6	9	7	1
P3	4	4	13	9	5
P4	6	5	18	12	7
P5	8	2	20	12	10
				43	23

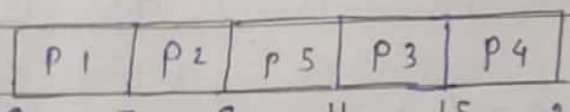


∴ Avg TAT = $\frac{43}{5}$ = 8.6 ms

∴ Avg W.T = $\frac{23}{5}$ = 4.6 ms

b] SJF (NON-preemptive) (C.T - A.T) (T.A.T - B.T)

process	A.T	B.T	C.T	T.A.T	W.T
P1	0	3	3	3	0
P2	2	6	9	7	1
P3	4	4	15	11	7
P4	6	5	20	14	9
P5	8	2	11	3	1
				38	18

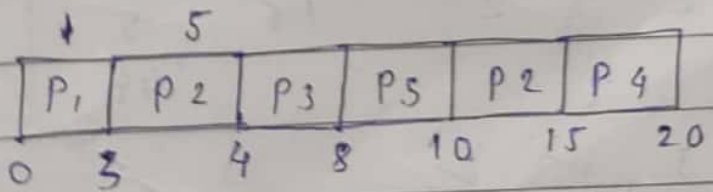


∴ Avg TAT = $\frac{38}{5}$ = 7.6 m

∴ Avg W.T = $\frac{18}{5}$ = 3.6 m

ii] SJF (preemptive) (C.T - AT) (TAT - B.T)

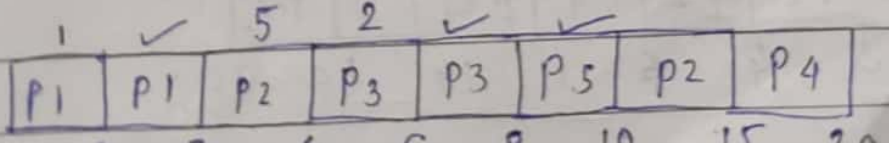
prs	A.T	B.T	C.T	T.A.T	W.T
P1	0	3	3	3	0
P2	2	6	15	13	7
P3	4	4	8	4	0
P4	6	5	20	14	9
P5	8	2	10	2	0
				36	16



∴ Avg TAT = 3

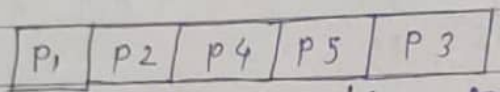
5

∴ Avg W.T = $\frac{16}{5}$



c) priority (Non- preemptive)

Process	A.T	B.T	priority	C.T	T.AT	W.T
P1	0	3	4	3	3	0
P2	2	6	3	9	7	1
P3	4	4	1	20	16	12
P4	6	5	5	14	8	3
P5	8	2	2	16	8	6
					42	22

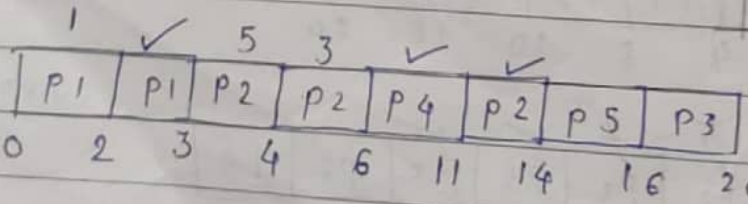


∴ Avg TAT = $\frac{42}{5}$ = 8.4ms

∴ Avg TAT = $\frac{22}{5}$ = 4.4 ms

ii) priority (pre-emptive)

process	A.T	B.T	priority	C.T	T.A.T	W.T
P1	0	3	4	3	3	0
P2	2	6	3	14	12	6
P3	4	4	1	20	16	12
P4	6	5	5	11	5	0
P5	8	2	2	16	8	6
					44	24



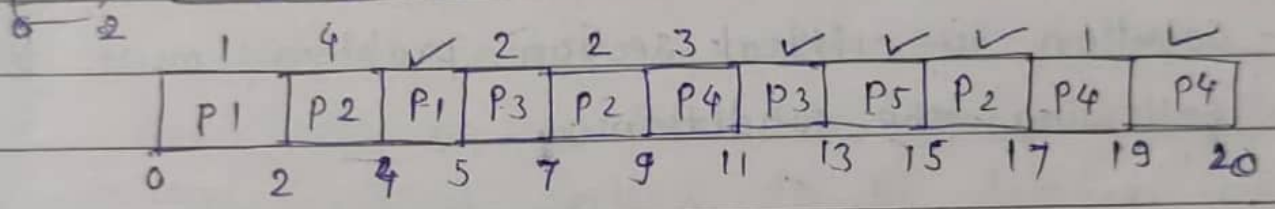
∴ Avg TAT = $\frac{44}{5}$ = 8.8 ms

∴ Avg WT = $\frac{24}{5}$ = 4.8ms

d] Round Robin (T = 2 ms)

process	A.T	B.T	C.T	TAT	W.T
P1	0	3	5	5	2
P2	2	6	17	15	9
P3	4	4	13	9	5
P4	6	5	20	14	9
P5	8	2	20 15	7	5
				50	30

P1 P2 P1 P3 P2 P4 P3 P5 P2 P4



∴ Avg TAT = $\frac{50}{5}$ = 10 ms

∴ Avg WT = $\frac{30}{5}$ = 6 ms