PaxT E

Q1 Process   AT   BT   CT   TAT   WT   RT

CT-AT   Tat-Bt

Process	AT	BT	CT	TAT	WT	RT
P1	0	5	5	5	0	0
P2	1	3	8	7	5	5
P3	2	6	14	12	6	6
				24	11	

criteria = FCFS.

Grannt chart

P1	P2	P3
0   5   8   14
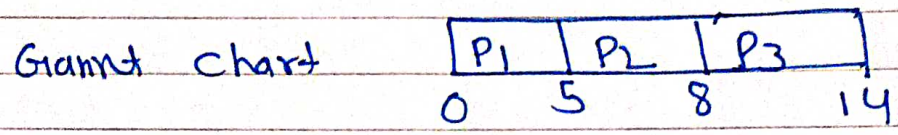
Avg waiting Time = $\frac{11}{3}$ = $\boxed{3.66 \text{ ms}}$

Q2 Process   AT   BT   CT   TAT   SJF   non-Preemptive.

Process	AT	BT	CT	TAT
P1	0	3	3	3
P2	1	5	13	12
P3	2	1	4	2
P4	3	4	8	5
				22

P1	P3	P4	P5
0   3   4   8   13
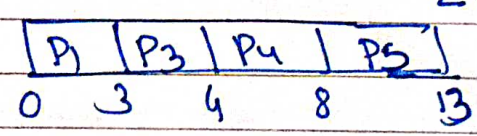
Total waiting Time = $\frac{22}{4}$ $\boxed{5.5}$ ms

CT-AT   TAT-BT.

Q3. Process   AT   BT   Priority · CT   TAT   WT

Process	AT	BT	Priority	CT	TAT	WT
P1	0	6	3	12	12	6
P2	1	4	1	5	4	0
P3	2	7	4	19	17	10
P4	3	2	2	7	4	2
						18

lower num Higher Priority.

Grantt chart.

P1	P2	P2	P2	P4	P1	P3
0   1   2   3   5   7   12   19.
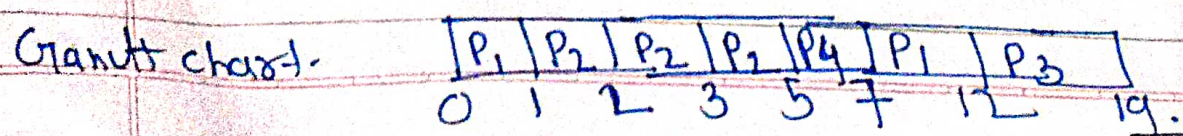
= Avg avating Time is $\frac{18}{4}$ $\boxed{4.5}$ ms.

Q4

Pid	AT	BT	CT	TAT	WT.
P1	0	4	8	8	4
P2	1	5	14	13	8
P3	2	2	15	13	11
P4	3	3	13	10	7
				44	

Avg TAT?.

Ready q. | P1 | P3 | P2 | P1 | P4 | P3 | P4 | P2 |
0 4

Gantt chartt : | P1 | P3 | P2 | P1 | P4 | P2 | P4 | P3 | P2 | P3 |
0   2   4   6   8   10   12   13   14 15

execution / calculation

P1   1 2 3 4
P2   1 2 3 4 5
P3   1 2
P4   1 2 3

$$TAT \quad Avg = \frac{Total}{4} = \frac{44}{4} = 11 \ \text{ms}$$

Q.5 Consider a program That uses a fork()
→ To create Chid process.
Parent have variable x with value
5 i.e. X = S.

Afte forking. both The value incremᵗ
X by 1.

Final value of X after The call.
Pᵗ

formula Parent Process.

→ initial X = 5
increment X + 1 = 6 Now.

Then X become = 6
y become = 6