CSE321: Operating Systems

Quiz-2

Name: [redacted] ID: [redacted] Section: 05

[CO3] Apply Round Robin (RR) scheduling algorithm with quantum = 4 and sh
the following -

- Gantt Chart — 2 Mark
- Average Waiting Time & Average Turnaround Time — 2 Mark
- Number of Context Switching — 1 Mark

Process ID	Arrival Time	Burst Time
P1	0	9
P2	3	11
P3	8	11
P4	6	10
P5	1	9

Process	A.time	B.time	W.time	T.time
P_1	0	9 5 1	(0-0) + (12-4) + (24-16) = 8+8	
P_2	3	11 7 3	(8-3) + (26-12) = 5+14	
P_3	8	11	(21-8) = 21	
P_4	6	10 6	(20-6) = 14	
P_5	1	9 5 1	(4-1) + (16-8) + (25-20) = 3+8+5	

Avg = 17.2

Av

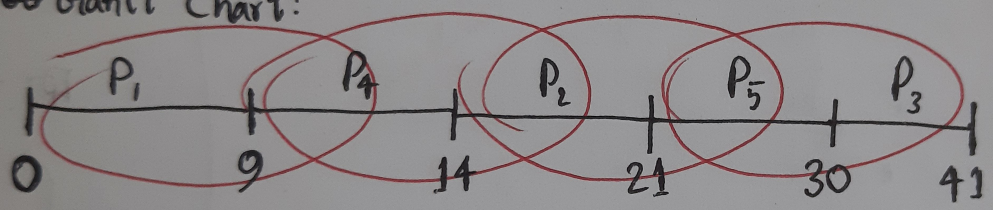
ue: $P_1\ P_5\ P_2\ P_1\ P_2\ P_5\ P_1\ P_2$

[CO3] Apply preemptive Shortest Remaining Time First (SRTF) scheduling algorithm and show the following -

- Gantt Chart — 2 Marks
- Average Waiting Time & Average Turnaround Time — 2 Marks
- Number of Context Switching — 1 Marks

Process ID	Arrival Time	Burst Time
P1	0	9
P2	4	7
P3	4	11
P4	6	5
P5	2	9

Gantt Chart:



Process ID	Arrival Time	Burst Time	Finish Time	Turnaround Time	Waiting Time
P_1	0	9	9	9	0
P_5	2	9	30	28	19
P_2	4	7	21	17	10
P_3	4	11	41	37	26
P_4	6	5	14	8	3

∴ The average Waiting Time $= \frac{58}{5} = 11.6$

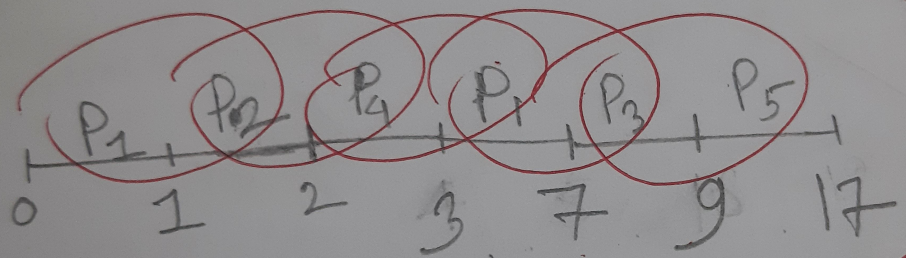
[CO3] Apply preemptive Shortest Remaining Time First (SRTF) scheduling algorithm and show the following -

- Gantt Chart — 2 Marks
- Average Waiting Time & Average Turnaround Time — 2 Marks
- Number of Context Switching — 1 Marks

Process ID	Arrival Time	Burst Time
P1	0	5 4
P2	1	1
P3	5	2
P4	2	1
P5	6	8

W.T	T.T
0 of 2	7
0	1
2	4
0	1
3	11
5 7	29

3



A.W.T = 1.0

A.T.T = 4.8.

Number of context switching = 3.5

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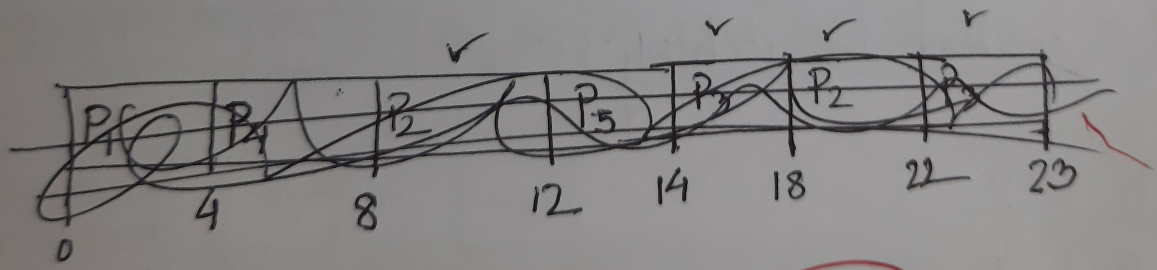
[CO3] Apply Round Robin (RR) scheduling algorithm with quantum = 4 and show the following -

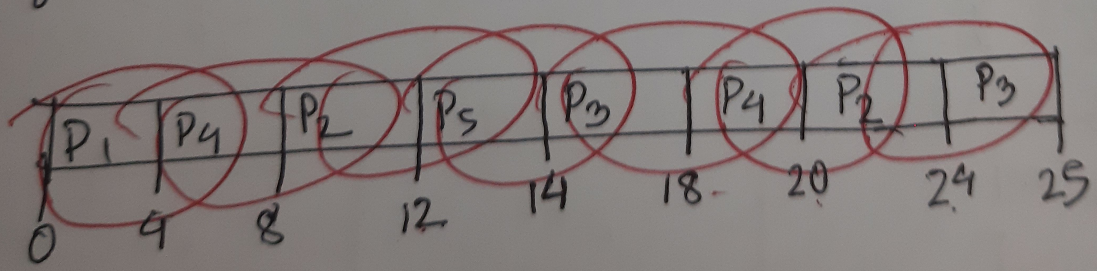
- Gantt Chart — 2 Marks
- Average Waiting Time & Average Turnaround Time — 2 Marks
- Number of Context Switching — 1 Marks

Process ID	Arrival Time	Burst Time
P1	0	4
P2	3	8
P3	7	5
P4	1	6
P5	5	2

W	T
0	4
5+8=13	21
7+[illegible]=18	18
3+10=13	19
7	9

Avg = 9.4 Avg = 14.2





ntext Switching :

$P_1 = 1$

9

CSE321: Operating Systems

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Name: Tahmeed Tabeeb ID: 20101582 Section: 4

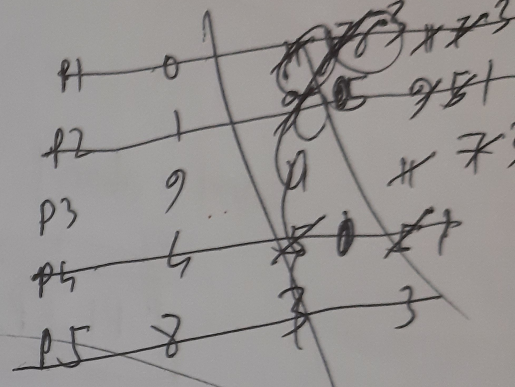
[CO3] Apply Round Robin (RR) scheduling algorithm with quantum = 4 and show the following -

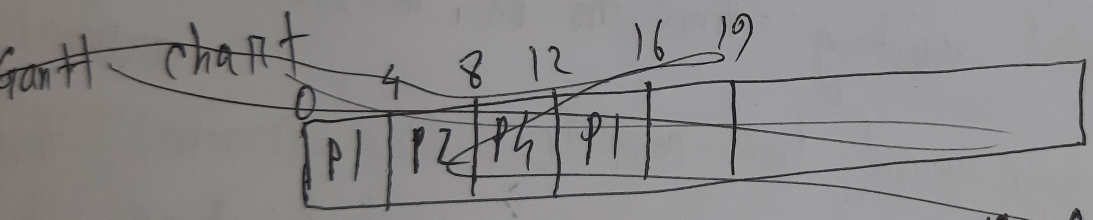
- Gantt Chart — 2 Marks
- Average Waiting Time & Average Turnaround Time — 2 Marks
- Number of Context Switching — 1 Marks

of context
ng = 1/10

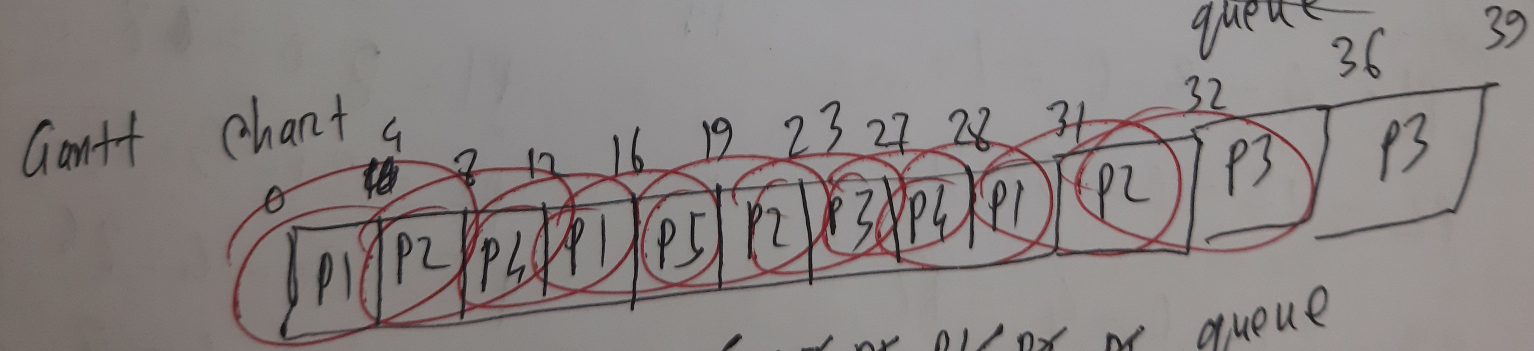
4

Process ID	Arrival Time	Burst Time
P1	0	11
P2	1	9
P3	9	11
P4	4	5
P5	8	3





queue



queue

e = total waiting time - no of milisecond executed - arrival t

time = completion time - arrival time

turnaround time
p1 = 31 - 0 = 31
p1 = 32 - 1 = 31

[CO3] Apply preemptive Shortest Remaining Time First (SRTF) scheduling algorithm and show the following -

- Gantt Chart — 2 Marks
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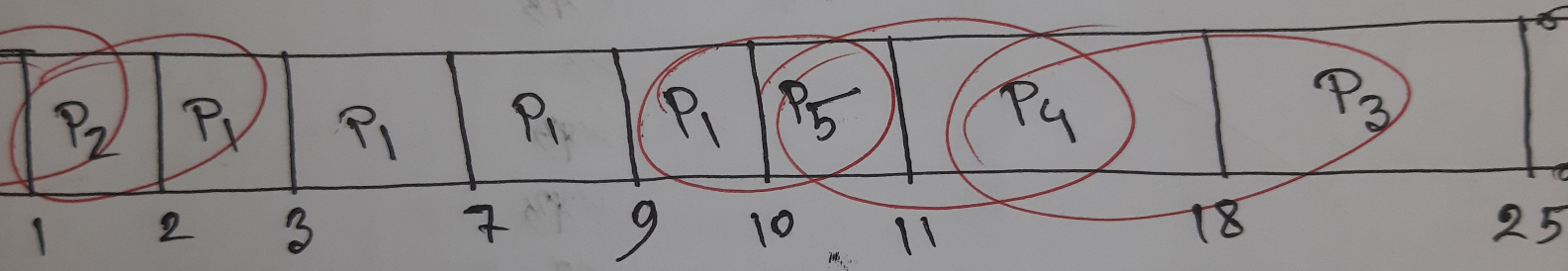
- Number of Context Switching — 1 Marks

Process ID	Arrival Time	Burst Time
P1	0	8
P2	1	1
P3	7	7
P4	3	7
P5	9	1

4



$= (0+1) + 0 + 11 + 8 + 1 = 4.2$

$= 10 + 1 + 18 + 15 + 2 = 9.2$

et Switching = 9 5