10

Quiz 3

Course: Operating Systems | Course Code: CS 2006
Section: BSE-5A | Total Marks:10
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Question 1: **[10 Marks]**

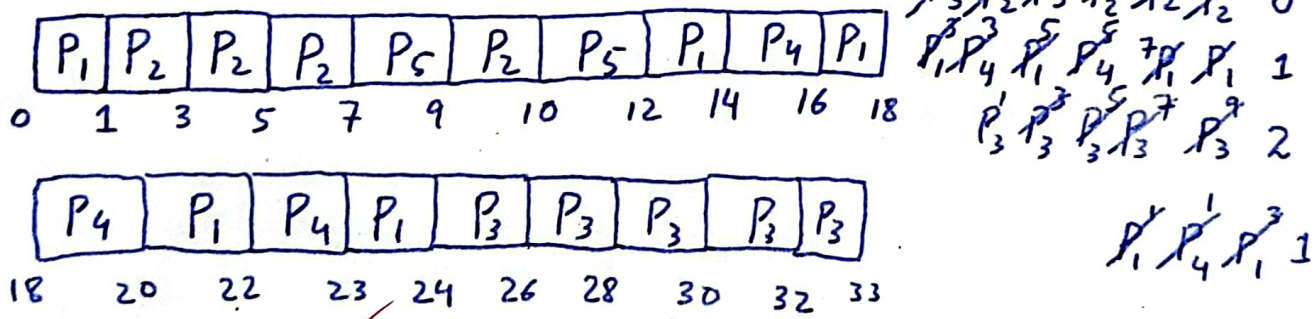
Consider the following set of processes with their respective arrival times and burst times:

Process	Arrival Time	Burst Time	Priority
P1	0	8	1
P2	1	7	0
P3	2	9	2
P4	3	5	1
P5	5	4	0

Round Robin Scheduling with Priority Preemptive (lower the number higher the priority)

Upon arrival of higher priority process lower priority process will be preempted, same priority processes will be executed through RR based on FCFS order in ready queue.

Using a time quantum of 2 units, determine the turnaround times, and waiting times for each process and there averages (with complete calculations). Show the Gantt chart as well (mandatory).



TAT $P_1 = 24$
TAT $P_2 = 9$
TAT $P_3 = 31$
TAT $P_4 = 20$
TAT $P_5 = 7$

Avg TAT = 18.2

W.T $P_1 = 16$
W.T $P_2 = 2$
W.T $P_3 = 22$
W.T $P_4 = 15$
W.T $P_5 = 3$

Avg WT = 11.6