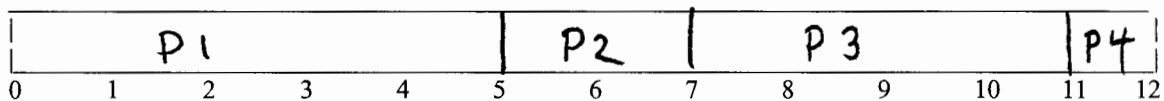Score:_____   Name:_____
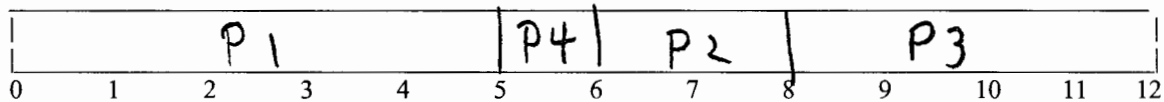## ECE 3055 Quiz – November 18, 2008
CPU Scheduling

The following processes arrive for execution at the times indicated. Use preemptive scheduling for SRTF and RR. Base all decisions on the information you have at the time the decision is made. At arrival time, the burst execution time is known. For RR, assume a newly arrived process is in the ready queue just prior to its arrival time (i.e. it is already in the ready queue just before a running process is stopped and added to tail of the ready queue at a time slice.)

Process	Arrival Time	CPU Burst or Execution Time
P1	0.0ms	5ms
P2	1.0ms	2ms
P3	3.0ms	4ms
P4	4.0ms	1ms

Draw a Gantt chart using FCFS:

P1	P2	P3	P4
0   1   2   3   4   5   6   7   8   9   10   11   12

Draw a Gantt chart using SJF (no preemption):

| P1 | P4 | P2 | P3 |
0   1   2   3   4   5   6   7   8   9   10   11   12

Draw a Gantt chart using SRTF:

| P1 | P2 | P1 | P4 | P1 | P3 |
0   1   2   3   4   5   6   7   8   9   10   11   12
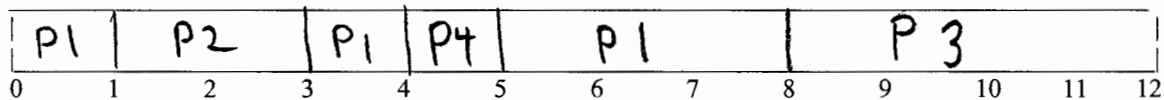
Draw a Gantt chart using RR with time slice = 1ms:

| P1 | P2 | P1 | P2 | P3 | P1 | P4 | P3 | P1 | P3 | P1 | P3 |
0   12

P2 P1 P3 P3 P1 P4 P3 P8 P3 P10 P3
P1 P1 P3 P4 P4 P3 P1 P3 P1 P3
    P2   P4 P4 P3 P3
        P3   P3 P1
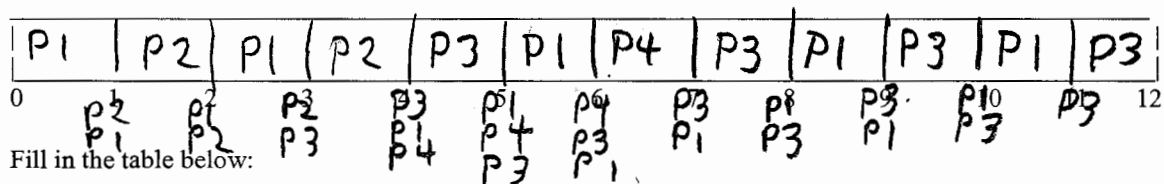
Fill in the table below:

	Average Turnaround Time	Average Wait Time
FCFS	6.75	3.75
SJF (no preemption)	5.75	2.75
SRTF (preemption)	5	2
RR	6.5	3.5