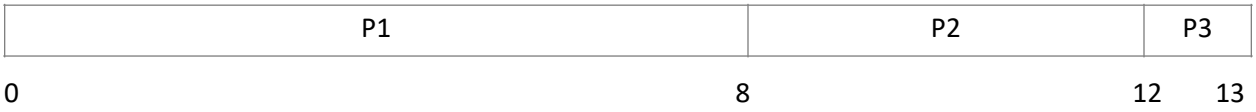
Lab 7: CPU Scheduling

Exercise 1:

a.



Turnaround Time P1 = 8 – 0 = 8

Turnaround Time P2 = 12 – 0.4 = 11.6

Turnaround Time P3 = 13 – 1 = 12

Average turnaround time = (8 + 11.6 + 12)/3 = 10.53

b.

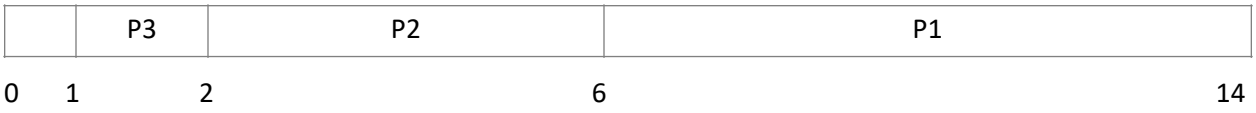
Turnaround Time P1 = 8 – 0 = 8

Turnaround Time P2 = 13 – 0.4 = 12.6

Turnaround Time P3 = 9 – 1 = 8

Average turnaround time = (8 + 12.6 + 8)/3 = 9.53

c.



Turnaround Time P1 = 14 – 0 = 14

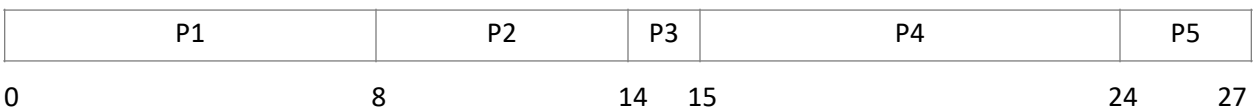
Turnaround Time P2 = 6 – 0.4 = 5.6

Turnaround Time P3 = 2– 1 = 1

Average turnaround time = (1 + 5.6 + 14)/3 = 6.8

Exercise 2:

FCFS:



Average Waiting Time = (0+8+14+15+24)/5 = 12.2

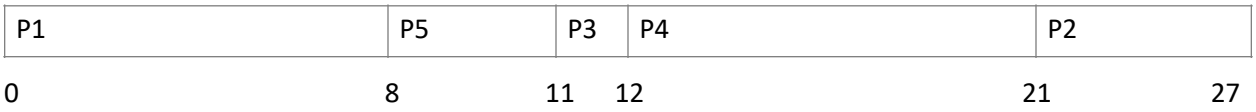
Average Turnaround Time = (8+14+15+24+27)/5 = 17.6

SJF:

Average Waiting Time = (0+1+5+10+18)/5 = 6.8

Average Turnaround Time = (1+4+10+18+27)/5 = 12

Non-Preemptive Priority



Average Waiting Time = (0+8+11+12+21)/5 = 10.4

Average Turnaround Time = (8+11+12+21+27)/5 = 15.8

Round Robin

P1 P2 P3 P4 P5 P1 P2 P4 P5 P1 P2 P4 P5 P1 P2 P4 P1 P2

P4 P1 P2 P4 P1 P4 P1 P4 P4

Waiting Time P1 = 0 + 4+3+3+2+2+2+1 =17

Waiting Time P2 = 1+4+3+3+2+2= 15

Waiting Time P3 = 2 = 2

Waiting Time P4 = 3+3+3+3+2+2+1+1+0 = 18

Waiting Time P5 = 4+3+3 =10

Average Waiting Time = (17+15+2+18+10)/5 = 12.4

Average Turnaround Time = (25+27+3+21+13)/5 = 17.8