Classwork 01 (02/18/2021)

Note: Submit the answer as a pdf document

1. Two processes, p1 and p2 arrive at time 0 and start executing using RR scheduling. The total CPU time of p1 is 70 time units, and p2 is 10. The quantum is Q = 10. The context switching time, which follows every Q, is S = 1.

P1:|||||iiiii||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||| (P1 + P2)

S: |

P2:iiiii ||||| (11 + 10)

ct P2 is 21

ct P1 is 80 1

TT = 21 - 0

TT = 81 - 0

102/2 = 51 ATT

2. Three periodic processes with the following characteristics are to be scheduled: T is the CPU Time and D is the period of the process.

Case 1	T	D
p1	3	50
p2	70	1000
p3	5	40

Case 2	T	D
p1	15	50
p2	5	10
p3	1	4

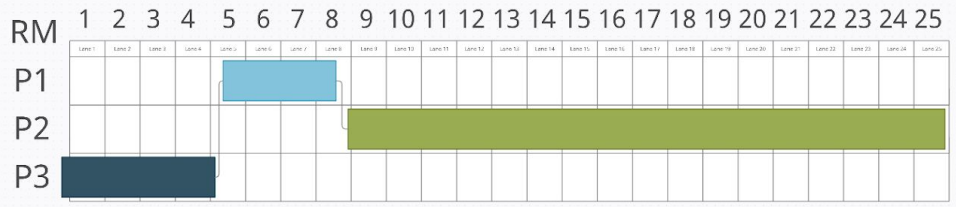
Case 3	T	D
p1	5	20
p2	7	10
p3	4	100

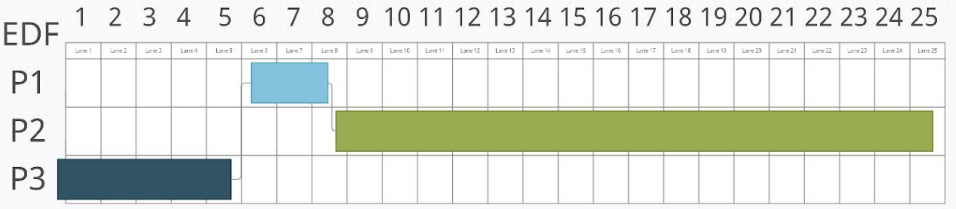
For each case, determine if a feasible schedule is likely to be generated by:

- RM
- EDF

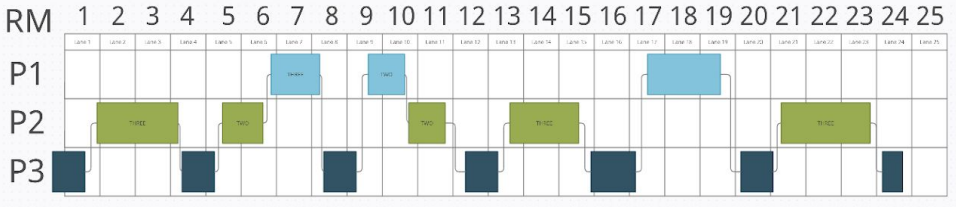
Draw the Gantt chart for the first 25-time units. For each of the 3 cases, show the schedules produced by RM and by EDF.

CASE 1





CASE 2



CASE 3