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CS 3600 - Operating Systems

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Homework 3

Question 1.)

a.) Ave Tat = 12.333 time units.

b.) Ave Tat = 12 time units.

Question 2.)

FIFO ATT = 3 Time Units

SJF ATT = 3 Time Units

 SRT ATT = 2.5 Time Units.

Question 3.)

a.) M=450/ Q = 100ms; M = 90 Q = 10ms; M = 50 Q = 0ms
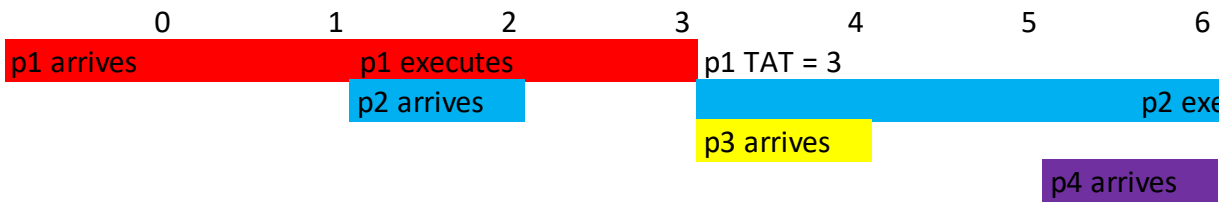
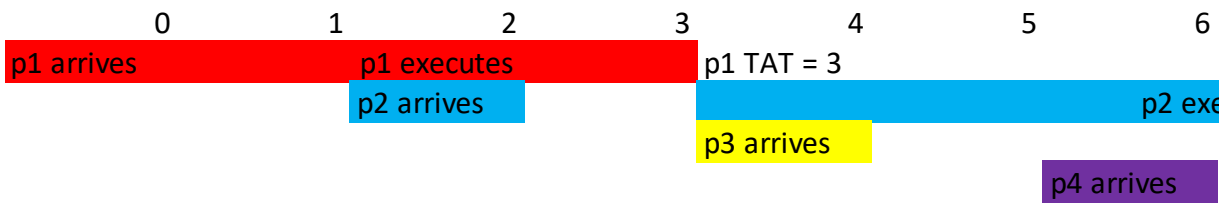b.) % CPU wasted: 18.6%

Question 4.)
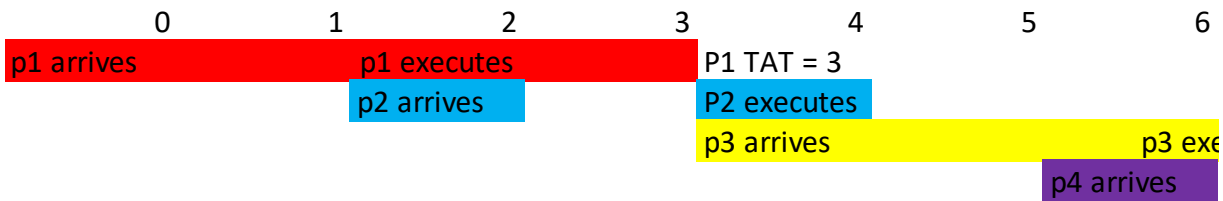
FIFO ATT = 8.6

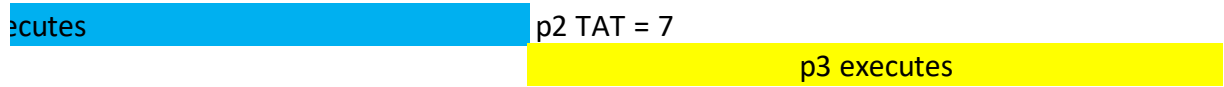SJF ATT = 7.6

SRT ATT = 7.2

FIFO   ATT = 8.6

	0	1	2	3	4	5	6

p1 arrives   p1 executes   p1 TAT = 3

p2 arrives   p2 exe

p3 arrives

p4 arrives

SJF   ATT = 7.6

	0	1	2	3	4	5	6

p1 arrives   p1 executes   p1 TAT = 3

p2 arrives   p2 exe

p3 arrives

p4 arrives

SRT   ATT = 7.2

	0	1	2	3	4	5	6

p1 arrives   p1 executes   P1 TAT = 3

p2 arrives   P2 executes

p3 arrives   p3 exe

p4 arrives

7	8	9	10	11	12	13

ecutes | p2 TAT = 7

p3 executes

p5 arrives

7	8	9	10	11	12	13

ecutes | p2 TAT = 7

p3 exe
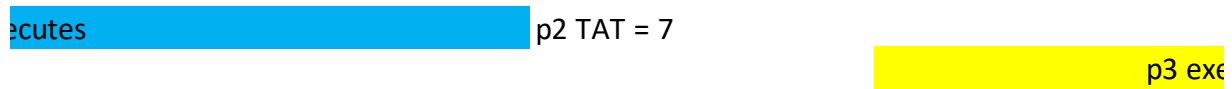
p5 arrives | p5 executes | p5 TAT = 3

7	8	9	10	11	12	13

P2 executes

ecutes | p3 TAT = 4

p5 arrives | p5 executes | P5 TAT = 2

| 14 | 15 | 16 | 17 | 18 | 19 | 20 |

p3 TAT = 9

p4 executes   p4 TAT = 12

p5 executes

| 14 | 15 | 16 | 17 | 18 | 19 | 20 |

ecutes   p3 TAT = 11

p4 executes

| 14 | 15 | 16 | 17 | 18 | 19 | 20 |

P2 TAT = 13

p4 executes

p5 TAT = 12

p4 TAT = 14

p4 TAT = 14