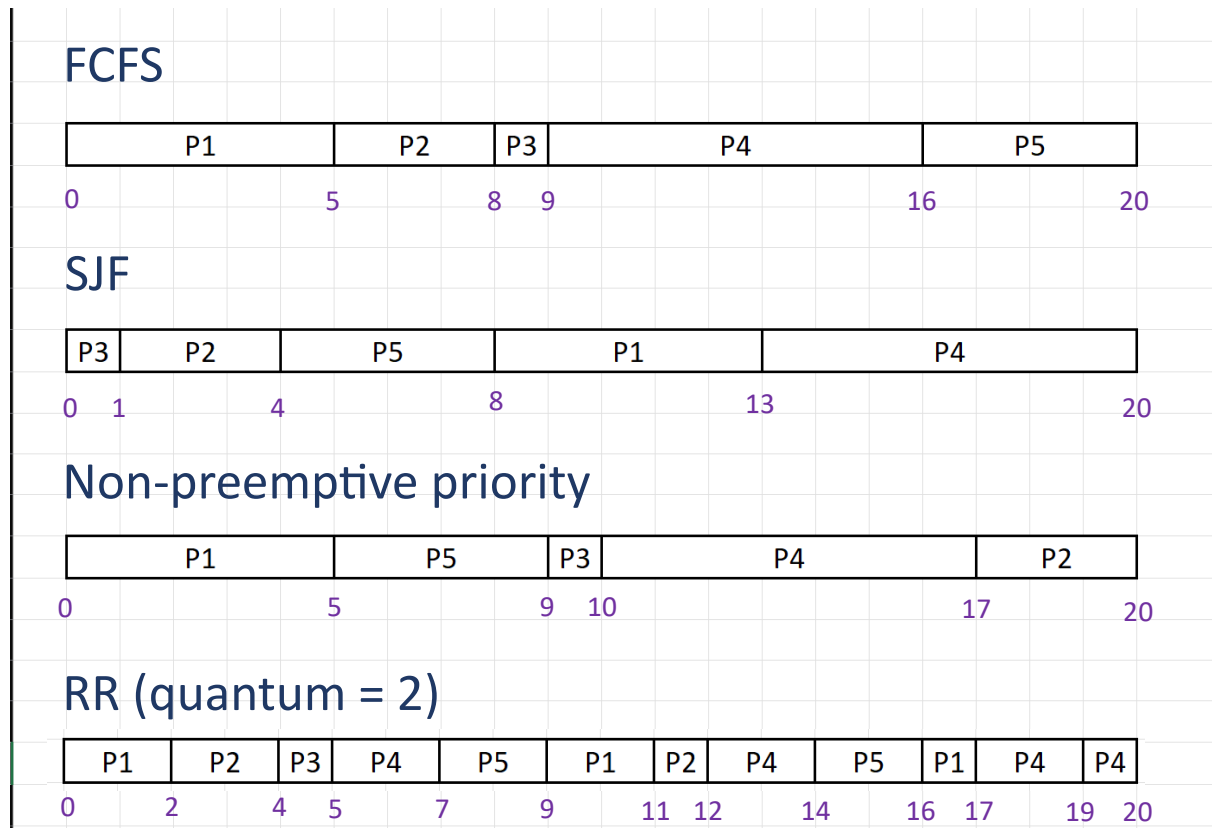


Ex 5.17

a.



b & c.

Turnaround time \rightarrow Completed time – Arrival time

(In this case, the arrival time for all five processes is 0)

Waiting time \rightarrow Turnaround time – Burst time

FCFS

Process	Burst time	Priority	Turnaround time	Waiting time
P1	5	4	5	0
P2	3	1	8	5
P3	1	2	9	8
P4	7	2	16	9
P5	4	3	20	16

SJF

Process	Burst time	Priority	Turnaround time	Waiting time
P1	5	4	13	8
P2	3	1	4	1
P3	1	2	1	0
P4	7	2	20	13

P3: 20 → 30

P4: 30 → 40

At t = 20, P3 arrives with higher priority and P2 gets preempted. At t = 25, P4 arrives with the same priority as P3, so RR scheduling is applied with quantum = 10

P3: 40 → 45

At t = 45, P5 arrives with a higher priority and P3 gets preempted. The instructions say that when preempted in the RR scheduling, it gets moved to the back of the queue.

P5: 45 → 50

P4 is in front of the queue since P3 was previously preempted

P4: 50 → 55

At t = 55, P6 arrives with higher priority and P4 gets preempted

P6: 55 → 70

P4 was preempted, which means P3 is in front of the queue

P3: 70 → 75

P4: 75 → 80

P2: 80 → 95

b & c.

Process	Priority	Burst	Arrival	Turnaround time	Waiting time
P1	8	15	0	15	0
P2	3	20	0	95	75
P3	4	20	20	55	35
P4	4	20	25	55	35
P5	5	5	45	5	0
P6	5	15	55	15	0