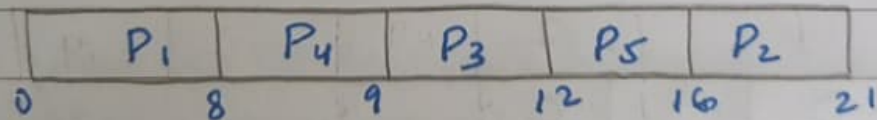


# SJF (Shortest Process Next)

(Non-Preemptive)

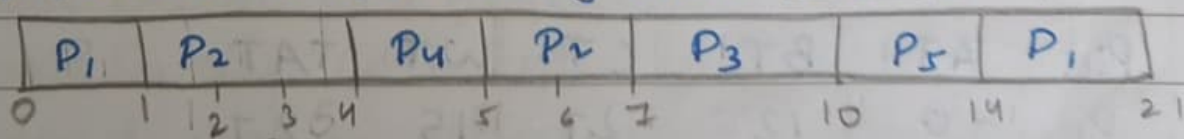
Process	AT	BT	CT	WT	TAT
P <sub>1</sub>	0	8	8	0	8
P <sub>2</sub>	1	5	21	15	20
P <sub>3</sub>	3	3	12	6	9
P <sub>4</sub>	4	1	9	4	5
P <sub>5</sub>	6	4	16	6	10

Non-preemptive



SJF (Shortest Remaining time next) or first

Preemptive



$$WT = TAT - BT$$

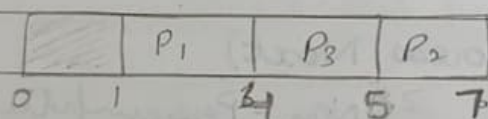
$$TAT = CT - AT$$

Process	AT	BT	CT	WT	TAT
P <sub>1</sub>	0	8	21	13	21
P <sub>2</sub>	1	5	7	1	6
P <sub>3</sub>	3	3	10	4	7
P <sub>4</sub>	4	1	5	0	1
P <sub>5</sub>	6	4	14	4	8

SRTF (Shortest Remaining Time First)

1)

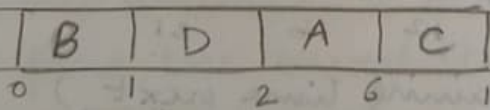
Pid	AT	BT	CT	WT	TAT
P <sub>1</sub>	1	3	34	0	23
P <sub>2</sub>	2	2	57	23	55
P <sub>3</sub>	3	1	465	01	72



SR

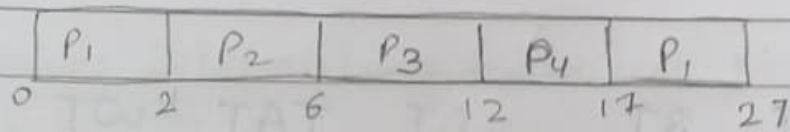
2)

Pid	AT	BT	CT	WT	TAT
A	0	4	6	2	6
B	0	1	1	0	1
C	0	8	14	6	14
D	0	1	2	1	2



3)

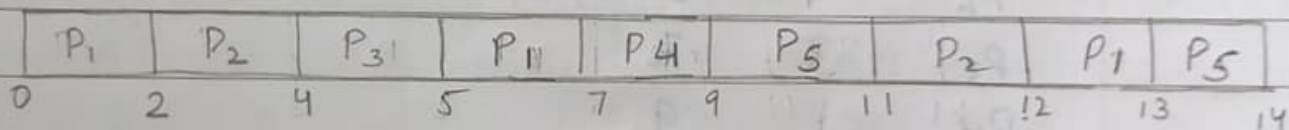
Pid	AT	BT	CT	WT	TAT
P <sub>1</sub>	0	12	27	15	27
P <sub>2</sub>	2	4	6	0	4
P <sub>3</sub>	3	6	12	3	9
P <sub>4</sub>	8	5	17	4	9



## Round Robin

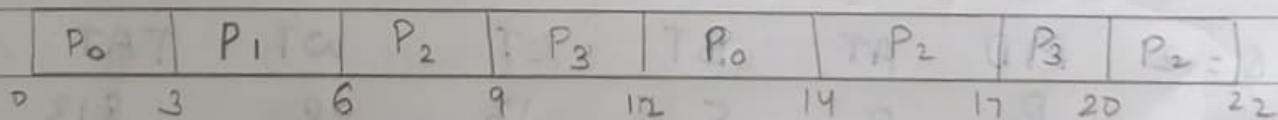
q = 2

PID	AT	BT	CT	TAT	WT
P <sub>1</sub>	0	5	13	13	8
P <sub>2</sub>	1	3	12	11	8
P <sub>3</sub>	2	1	5	3	2
P <sub>4</sub>	3	2	9	6	4
P <sub>5</sub>	4	3	14	10	7



Q = 3

PID	AT	BT	CT	TAT	WT
P <sub>0</sub>	0	5	11	11	6
P <sub>1</sub>	1	3	6	5	2
P <sub>2</sub>	2	8	22	20	12
P <sub>3</sub>	3	6	20	17	11



Q - 4 jobs to be executed on a single processor system arrive at time 0 in order A, B, C, D. Their burst CPU requirements are 4, 1, 8, 1 respectively. Calculate TAT, WT, CT under round robin scheduling with time slice of 1 time unit.



→


 $Q = 1$ 

PID	AT	BT	CT	TAT	WT
A	0	4	9	9	5
B	0	1	3	3	2
C	0	8	14	14	6
D	0	1	4	4	3

A	B	C	D	A	C	A	C	A	C	
0	1	2	3	4	5	6	7	8	9	14

 $Q = 3$ 

PID	AT	BT	CT	TAT	WT
P <sub>1</sub>	5	5	32	27	22
P <sub>2</sub>	4	6	27	23	17
P <sub>3</sub>	3	7	33	30	23
P <sub>4</sub>	1	9	30	29	20
P <sub>5</sub>	2	2	6	4	2
P <sub>6</sub>	6	8	21	15	12

	P <sub>4</sub>	P <sub>5</sub>	P <sub>3</sub>	P <sub>2</sub>	P <sub>4</sub>	P <sub>1</sub>	P <sub>6</sub>	P <sub>3</sub>	P <sub>2</sub>	P <sub>4</sub>	
0	1	4	6	9	12	15	18	21	24	27	30

$P_1$	$P_3$	
30	32	33

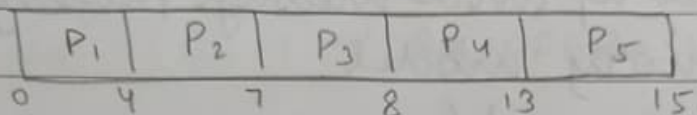
 $Q = 2$ 

PID	AT	BT	CT	WT	TAT
P <sub>1</sub>	0	5	13	8	813
P <sub>2</sub>	1	3	12	8	11
P <sub>3</sub>	2	1	5	2	3
P <sub>4</sub>	3	2	9	4	6
P <sub>5</sub>	4	3	14	7	10

$P_1$	$P_2$	$P_3$	$P_1$	$P_4$	$P_5$	$P_2$	$P_1$	$P_5$	
0	2	4	5	7	9	11	12	13	14

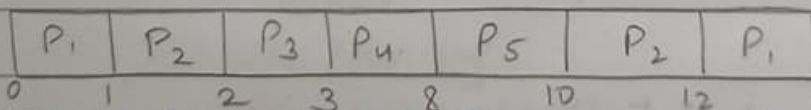
## Priority Scheduling (Lowest No. Highest Priority)

PID	AT	BT	Priority	CT	TAT	WT
P <sub>1</sub>	0	4	2	4	4	0
P <sub>2</sub>	1	3	3	7	6	3
P <sub>3</sub>	2	1	4	8	6	5
P <sub>4</sub>	3	5	5	13	10	5
P <sub>5</sub>	4	2	5	15	11	9



## Priority Scheduling (Highest No. Highest Priority)

PID	AT	BT	Priority	CT	TAT	WT
P <sub>1</sub>	0	4	2	15	15	11
P <sub>2</sub>	1	3	3	12	11	8
P <sub>3</sub>	2	1	4	3	1	0
P <sub>4</sub>	3	5	5	8	5	0
P <sub>5</sub>	4	2	5	10	6	4



lowest no. highest priority:

PID	AT	BT	Priority	CT	TAT	WT
P <sub>1</sub>	1	3	2	7	6	3
P <sub>2</sub>	2	2	2	6	4	2
P <sub>3</sub>	3	1	1	4	1	0

