#### Julian Garcia

Exam 1: Question 12

## FCFS:

**Gantt Chart** 

P0	P1	P2	P3	P4
0	2	3 (	) 1	3 16

Waiting Time for P0 = 0, P1 = 2, P2 = 8, P3 = 9, P4 = 13 Avg Waiting Time = (0 + 2 + 8 + 9 + 13) / 5 = 6.4

## ResponseTime for

P0 = 0,

P1 = 1,

P2 = 4,

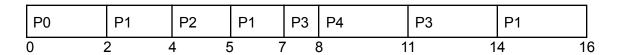
P3 = 2,

P4 = 5

Avg Response Time = (0 + 1 + 4 + 2 + 5) / 5 = 2.4

## SJF:

**Gantt Chart** 



## Waiting Time for

$$P0 = 0$$
.

$$P1 = 2 + (5 - 2) + (14 - 4) = 15$$

$$P2 = 4$$

$$P3 = 7 + (11 - 2) = 16$$

$$P4 = 8$$

Avg Waiting Time = 
$$(0 + 15 + 4 + 16 + 8) / 5 = 8.6$$

# ResponseTime for

$$P0 = 0$$
,

$$P1 = 1$$
,

$$P2 = 0$$
,

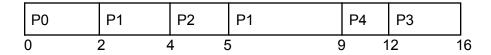
$$P3 = 0$$
,

$$P4 = 0$$

Avg Response Time = (0 + 1 + 0 + 0 + 0) / 5 = 0.2

## SRTF:

#### **Gantt Chart**



## Waiting Time for

$$P0 = 0$$
,

$$P1 = 2 + (5 - 2) = 5$$

$$P2 = 4$$
,

$$P3 = 12$$
,

$$P4 = 9$$

Avg Waiting Time = 
$$(0 + 5 + 4 + 12 + 9) / 5 = 6$$

# ResponseTime for

$$P0 = 0$$
,

$$P1 = 1$$
,

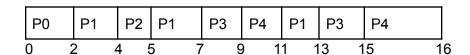
$$P2 = 0$$
,

$$P3 = 5$$
.

Avg Response Time = (0 + 1 + 0 + 5 + 1) / 5 = 1.4

## RR (Quantum 2):

## **Gantt Chart**



# Waiting Time for

$$P0 = 0$$

$$P1 = 2 + (5 - 2) + (11 - 4) = 12$$

$$P2 = 4$$

$$P3 = 7 + (13 - 2) = 18$$

$$P4 = 9 + (15 - 2) = 22$$

Avg Waiting Time = (0 + 12 + 4 + 18 + 22) / 5 = 11.2

## ResponseTime for

$$P0 = 0$$
,

$$P1 = 1$$
,

$$P2 = 0$$
,

$$P3 = 0$$
,

$$P4 = 1$$

Avg Response Time = (0 + 1 + 0 + 0 + 1) / 5 = 0.4