**SISTEM OPERASI**

**(LATIHAN)**



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**PROGRAM STUDI S-1 TEKNIK INFORMATIKA**

**FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM**

**UNIVERSITAS PADJADJARAN**

**JATINANGOR**

**2022**

| Process | Arrival Time | Burst Time |
| --- | --- | --- |
| P1 | 0.0 | 10 |
| P2 | 3.0 | 6 |
| P3 | 5.0 | 12 |
| P4 | 7.0 | 9 |
| P5 | 8.0 | 5 |

1. FCFS

| P1 | P2 | P3 | P4 | P5 |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

0 10 16 28 37 42

WT = P1: 0

P2: 10

P3: 16

P4: 28

P5: 37

AWT = (0 + 10 + 16 + 28 + 37) / 5

= 18,2ms

1. SJF (Non Preemitive)

| P1 | P5 | P2 | P4 | P3 |
| --- | --- | --- | --- | --- |
| I I I I I I I I I | I I I I | I I I I I | I I I I I I I I | I I I I I I I I I I I |

0 3 5 7 8 **10** **15** **21** **30** **42**

↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑

P1 P2 P3 P4 P5 P2 P2 P3 P3

P3 P3 P4

P4 P4

P5

WT = P1 = 0

P2 = 15 - 3 = 12

P3 = 30 - 5 = 25

P4 = 21 - 7 = 14

P5 = 10 - 8 = 2

AWT = (0 + 12 + 25 + 14 + 2)/5

= 10,6 ms

1. SJFP (Preemitive)

| P1 | | | P2 | | | | | | P5 | | | | | P1 | | | | | | | P4 | | | | | | | | | P3 | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 3 | | 5 | |  | 8 | |  |  |  |  | 14 | |  |  |  |  |  | 21 | |  |  |  |  |  |  |  | 30 | |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | |  | | 7 | | 9 | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | P1(7)  P2(6) | | P1(7)  P2(4)  P3(12) | | P1(7)  P2(2)  P3(12)  P4(9) | | P1(7)  P3(12)  P4(9)  P5(5) | |  |  |  | P1(7)  P3(12)  P4(9) | |  |  |  |  |  | P3(12)  P4(9) | |  |  |  |  |  |  |  | P3(12) | |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | |  | |  | P1(7)  P2(1)  P3(12)  P4(9)  P5(5) | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

WT = P1 = 0 + (14 - 3) = 11

P2 = 0

P3 = 30 - 5 = 25

P4 = 21 - 7 = 14

P5 = 9 - 8 = 1

AWT = (11 + 0 + 25 + 14 + 1)/5

= 10,2 ms