

SJF

preemptive
non-preemptive

ms

тл

AT BT WT

TT

RT

o

8

8

~P2

1 4 18-1=7

12-1= | |

7

P3

2 9 14-2=12 | 26-2=24 15

OT=(TT)-BT

~P4 3

35

$$12-3=9 / 17-3=149$$

non-

preemptive -SJF hautt chart

P1(8
)

p2 (4) P4
(5)

P3 (9)

8

12

17

26

Avg. WT =

$$(0 + 7 + 15 + 9) / 4 = 7.75$$

ms

Avg. TT =

$$(8 + 11 + 24 + 14) / 4$$

$$= 14.25 \text{ms}$$

AT – Arrival

Time

BT – Burst time

WT

waiting time

TT = Turnaround time

RT – Response time

SJF -

preemptive

VP

/

v

P2

P2

VP4

ॐ

ATBTTT

ATI

$$WT = TT - BT$$

WT

RT

o

$$8 \text{ (7) } 17 - 0 = 17$$

9

0

14

$$5 - 1 = 4$$

$$14 - 4 = 0$$

$$1 - 1 = 0$$

2

9

15

من

$$26 - 2 = 24 / 24 - 9 = 15$$

$$5 \quad 10 - 3 = 7 \quad 7 - 5 = 2$$

P1 (1) *P2* (4) *Pu*
(5)

P1
(7)

P3 (9)

5

10

17

26

Avg waiting time (WT) =

$$(9+0+15+2)/4$$

$$= 6.5\text{ms}$$

$$\text{Avg. TT} = (17+4+24+7)/4 = 13\text{ms}$$

=

P3

✓ P4

P5

AT BT

TT

WT

7

$$7-0=7$$

UT f f w

2

d न

$$10-3=7$$

$$72=5$$

3

$$13-4=9$$

$$93=6$$

1

$$8-4=4 \quad 14-1=3$$

3

$$16-5=11 \quad | \quad 11-3=8$$

$$|11$$

—

SJF (non-preemptive)

RI

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له wa اس

P1 (7)

P4 (1)

P2(2)

P3 (3) Ps

(3:

0

7

8

10

13

* In SJF, if multiple processes in ready queue have some cpu burst, the those processes are scheduled using

FCFS Alg

$W_T =$

cpu

(5

•

$$(5+6+3+8) / 5 = 4.4\text{ms}$$

Av8 TT =

$$(7+7+9+4+1) / 5$$

$$= 5.6\text{ms}$$

SJF

(preemptive)

LAT | BTTT

ЮТ

RT

P

0

チ

$$16-0=16$$

$$16-7=9$$

o

P2

من

2

$$5-3=2$$

o

o

✓ P3 4

3

$$9-4=5$$

2

2



Pu 14

1

$$6-4=2$$

1

vps 15

3

$$12-5=7$$

4

4

P, (3) P2 (2) P4 (1) Ps (3) P5

(3) P, (4)



Avg WT =

$$(9+0+2+1+4) / 2 = 8\text{ms}$$

Avg TT =

$$(16+2+5+2+7)/2 = 16\text{ms}$$