Operating System

Assignment

1) What is awayage Turn around time for the following mounts
i) Using FCFS
ii I non - preemptive SJF
iii) presemptive SJF

P Notes	Assival Time	Bullt Time
Ρ,	0	8
P 2	0.4	4
P 3	1	

i) Whing FCF 6

PI PI PI

PSrows	arlival Time	Bullt Time	Waiting Time	Tulnahourd time
P	0	8	0-020	8 + 0 = 8
P2	0.4	4	8-0-4=7.6	4+7-6 -11.6
P ₃	1	1	12-1=11	1+11=12

dueloge Tulnahand Time = $\frac{8+19.61}{3}$ = $\frac{31.6}{3}$ = 10.53 ms.

(iii	non	- Memptive	SJ	F
1.1	1,010	Iracingouro	00	4

P,	P	P
0	8	7 12

Proces	Arival Time	B What Time	Waiting Time	Twhn abound Time
۴,	0	8	0-0 = 0	8+0=8
PL	0.4	4	9-0.4=8.6	8:6+4=12.6
P ₃	1	١	8-1= 7	7+1=8

Auchage then abound time = $\frac{8+12.6+8}{3} = \frac{28.6}{3} = 9.53 \,\text{ms}$

P	,	P 2	P	3	Pa	_ P	1	
0	0.4		1	2		5.4		1

Photeis	Whiteal	Bullt Time	Waiting Time	Twin whand
۴,	0	8	[0+(5.4-0.4)]-0 =5	8+5=13
P ₂	0.4	4	Lo-4+ (2-1)3-0-4	4+1=5
P 3	1	1	= 1 [1-1] = 0	1+0=)
	1 0			

duelage torn about time = $\frac{13+5+1}{3}$ = 6.33 ms.

Phoess	Bull Time	Hiority
P1	10	3
P2	1	1
P 3	2	3
PL		4
P ₅	5	2

Photes are allived in P, P, P, P, P, Ps order at Time O.

i) Dhow gonth chart to Show execution between i) FCFS ii15JF
iii) non-pheemphise phiology iv) Round Robin (70=1ms)

ii) Calculate waiting Time and Two abound time for each schedding

i) i) FLFS

P	1	P2	P 3	PL	P 5	7
D	10	11		13	14	10

Protes	Execution	Waiting Time	Tin drovel
Pi	lo	0	10
P 2	1	lo	- 11
P3	2	11	13
PY	1	13	14
Ps	5	14	19

voiting line = 48 ms
Town about Time = 67 ms

ii) SJF	P	P	4 P	3 P5	PI	
	0	١	2	4	9	10

Swalg	Execution	Waiting Time	Two about
	pone	une	une
61	10	9	10+9=19
PL	1	0	1+0 = 1
P 3	2	2	2+2=4
94	1		1+1=2
P 5	5	4	5+4=9

Total waiting Time = 16ms Total tulnedown Time = 35ms

iii) Non - Meentie miduts

Ph	PS	The same of the sa	P, P	2	P.	1
0	1	6	16	1	8 4	- 1

Phocul	Bulut Time	P hishity	waiting	Turnaloud
		- Control of the Cont	time	line
6,	10	3	6	10+6=16
PL	1	1	0	1+0=1
P 3	2	3	16	
				2+16=18
P4		4	18	1+18-19
PS	5	2	1	5+1=6
	Total waiting	time = l.lm(Total Tuber at	outtine = 60 mg

Photos	Examples time	Waling Time	Tundout Time
P ₁	10	0+(5-1)+(8-6)+(10-4) +(12-11)+(14-13)=9	10+9=19
P ₃	2	1 2+(6-3)=5	1+1=2 2+3=T
94	1	3	1+3=4
P5	5	4+ (7-5)+(9-8)+	5+9=14

Total Trinedoud Time = 46 ms

Total Waiting Time = 27ms