

BAHRIA UNIVERSITY, (Karachi Campus)

Department of Software Engineering
ASSIGNMENT #. 02 – Spring 2022

COURSE TITLE: Operating Systems COURSE CODE: CSC-320

Class: BSE - 4(A & B) Shift: Morning
Course Instructor: Engr. Rizwan Fazal Date: 16-May-2022
Due Date: 30-May-2022 (4pm) Max. Marks: 10 Points

ASSIGNMENT #. 2

Submitted by:

Name: Muhammad Junaid Saleem Qadri

Registration #: 70003

Section: <u>BSE-4B</u>

Pro	biem	9.1)
		-	_

Section:	Process	Service	Arrival	Priority
KBI TREE	Pi	Sa	0 1	40,
	P2 .	20	20	5 1 4 411
	Ps	100	.40	3
	Py	40	60	2

for diagrams, 10 ms = 1 unit.

a) SRT:

	Pi	1	P_	T	P,		PIT		P4	in	T	Da 3	P	3	DK.	6.52	100	E.	-	No	1	
,	T	2	3	4	5	6	47	8	1	16	11	12	13	14	12	16	17	18	19	70	21	

Remaining times at P1's animal:

at Pris amivals

P1 = 30 , P2 = 20

at Pa's anival!

P1 = 30 , Ps = 100

at Pu's amival:

P1=10, P3=100, P4=40

at Pi's completions

P3=100, P4=40

at Py's completion:

P3 = 100

Piuish	Wait	Turnaraid	Normalized lat
	(tax-seowce)	(finish - arrival)	(tat/sorvice time)
טד	70 -50 = 20	70-0 =70	1.4
५०	20 - 20 = 0	40-20 = 20	1 - 1
210	170-100 270	210 -40 = 170	1.7
110	50-40 =10	110-60 = 50	1.25

Non-preemptive Priority:

	Pi				P2	-	P	4		10	81	1	P3	SATS.		de la	d d	344		1
0	7	3	4	5	6	17	0	9	16	11	12	13	14	15	16	77	18	19	20	21

	finish	Wait .	Turnaronel	Normalized Pat.
	50	50-50 =0	50-0 = 50	
y I	70	56-20-30	70-20 2 50	2-5
	210	170-100 270	210-40-170	1.7
	llo	50-40=10	110-60 250	1.25

Round Robin:

Tour quantum 2 30 ms.

	P	1	33	Pz		Pi		Ps			Pu	la e		Ps		P		P3			1	
+	1	1	3	4	2	6	7	8	9	10	10	12	151	4	15	16	17	18	19	30	21	100

	Quene	1	Pi Di	D'	PX	PK	1X	04	9
	Pt	80	76	6			115		
-	Pz	36	ь						er/1007
	Pa	196	76	46	0				
-		1						100	

finish	Wait	Turnarounel	Normalised lat	18
70	70-50220	70-0=70	1.4	
80	30-20 = 10	50-20=30	1.5	
240	170-100 = 70	20-40=170	12 1-79 A	
170	110-40 =70	170-60=160	2.75	34

b) Average waiting times:

SRF = 20+0+70+10 = 25 mg

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Priority = 0+30+70+10 = 275 ms

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Romel Robin = 20+10+70+70 = 42.5 ms

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Problem 9.2)	1.1	et a la l	.1114
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The factors	that Shon	ld be considered in named rol	~
determine 14	e time a	nantum in round rol	ain :
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· Throughput	ne :	and god to ske	44 15
· Waiting Time			
- 6	San Ask	Care Town Tax a rate to the	74
Process	Arrival	Service	
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ρ,	2. 8	18	along "
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For 9,22 :	P1 P2 P2 P3 P4 P3	P3 P1 P4 P4 P1 P2 P3 P1 P2 P3 P1 P1 P1 P1 P1 P1 P1	R. \
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P2 4 4 :	10		100000000
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PI 0 P2 0 193 16 18 0 P4 0

finish	Arrival	Turnaround.	3-1-3-1-30
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34	10	24	9
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