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		UIT 2503	- PRINCIPLES	OF OPE	ERATING	SUCTEM	· · · · · · · · · · · · · · · · · · ·
						OYBILIVIS	5 ·
*			Assign	MENT -	2		
*					RY. D. M	T // C.D.	
*					BY: R:NI REG NO: 2		
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-		P5	5	٥٠٤	19	18.4	13.4
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-					7179 . 15.	06	Avg: 9.26
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P2 0.2 1 19 18.8 17.8 P3 0.4 2 18 17.6 15.6 P4 0.5 1 11 10.5 9.5 P5 0.6 5 16 15.4 10.4			, ,				
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PS 0.6 5 16 15.4 10.4		Comments. The spatial and a property of the state of the		1			9.5
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	. Ps.	0.6	_,	9.2		
				drg: 6.	82	3.02
	1					

	Date :
2)	monitor Alarm Clock § int current Tick = 0; queue waiting Tasks;
	Sint cumant Tick - 0.
	& int current Tick = 0; queue waiting Tasks;
	Perocedure delay (int tocks)
	§
	int wakeup Time = current Tick + ticks;
	int wakeup Time = curvent Tick + ticks; enqueue (waiting Tasks, (Wakellp Time, Curvent Task));
	while (current Tick & WakeUp Time)
	& wait ();
1	3
,	
	Procedure tick()
	· · ·
	coverent Tick = coverent Tick + 1;
	while (lie Empty (waiting Tasks) &&
	Deek (waiting Tasks) wate Up Time
	while (! is Empty (waiting Tasks) && peel (waiting Tasks). Wate Up Time & = current Tick)
	tack - dame (waiting Tacks)
	task = dequeue (waiting Tasks); Noting (task);
	5

ļ	Date :	
2	2	-
	covert Tick = 0 ; waiting Tasks = empty Queue ();	
	waiting Tasks = empty Queue ().	
	3	
	3	
	-	
3)	BANKER'S ALGORITHM:-	
	Allocation Max Available N.	eed
	Po 0012 1520 00	00
	P1 1000 1750 07	5 0
	P ₂ 1354 2356 10	02
	P3 0632 0632 00	00
	13	42
	P4 0014 0656	
	Work = Available	
	Po: Need < Nork. then work = work +	
	allo cation	
	0000 L 1520 (Po completed)	
	Work = 1520	
	0012	
	1532	
	Pi: 0750 > 1532	
	P2: 1002 L 1532 (Can complete)	
	1532	
	1354/2886/	
<u> </u>		

	Date :
. ,	P3: 0000 L 2886 (can complete)
	P3: 0000 \(\) 2886 (\tan complete) \(\)
	0632
	2 14 11 8
	P4: 0642 < 2 14 11 8 (can complete)
	P4: 0642 < 2 14 11 8 (can complete)
	the state of the s
4 5	work = 2 14 11 8
* # J	60014
<u>k</u> v	
	2 14 12 12
6	
4.0	P. 0750 2 2 14 12 12
	(can complete)
	ka i ca sa tagan ka
	work = 2 14 12 12
	0 7 5 0
	2 21 17 12
	: The system is in safe state
	1.62 13 350.10
	$P_0 \rightarrow P_2 \rightarrow P_3 \rightarrow P_4 \rightarrow P_1$
	10 / 13 / 14 / 1
	Day Day Day
	le) reg ferom P, for (0, 4, 2, 0)
	if reg < reed:
	0420 < 0750
•	

	Date :
	Date:
	if reg 2 available.
	0 H 20 L 15 20
	then for Pi Allocation: 18 0 0 0
	0 4 2 0
	1 4 2 0
	Available: 1520
/	0 4 2 0
P	0 4 2 0
<u> </u>	1100
(0 7 5 0
	Need: 0750
-	0 T & 0
	0 3 30
<u></u>	110.22
4	Reg = Available : reg = 1100
4	Po: 0000 × 1100 then reg = 1100 = 1112
	D: 0000 × 1100, New 10012
	T B
	P1: 0330 > 1112
	then 940 1112 0 = 2466
<u>u</u>	P2: 1002 < 1112 then 9eg 1112 \$\overline{0}\$ = 2466
الله الله	10 2 11/1 91-92
	P3: 0000 L 2466 Then 9eg = 2466 = 21098
<u> </u>	<u>r3</u> : 0652
9	
<u> </u>	

P4: 0042 < 2 1098 Then reg, Pr. 0333 L 2 10 10 12, then reg, in The Request can be granted immediately and system remains safe. 11) Disk drive has 200 cylinders, numbered from o to 199. Head pointer: 53
Request queue: 98, 183, 37, 122, 14, 124, 65, 67 (i) FCFS 14 37 53 65 67 98 122 124 183

	Date :
	Total distance = 98-53 + 183-98 + 37-183
	+ 122 - 37 + 14 - 122 + 124 - 14
	+ 65 - 124 + 67 - 65
á	= 45 + 85 + 146 + 85 + 108 + 110 + 59 + 2
	= 640 cylinders.
(ii)	SSTF (Shortest Seek Time First)
	\(\text{\tint{\text{\tint{\text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex
•	0 14 37 53 65 67 98 122 124 183 199
•	
-	
	
4 4 4	
2	→• →• →• →• ·
~ _	4.
_	total distance = [65-63]+167-65]+ [37-67]+
•	114-371+ 98-14 + 122-98 +
	1124-1221+183-1241
	= 12+2+30+23+84+24+2+59
	= 236 cylinders.

1	
	Date :
III) SCAN	
THE SCATT PART AND A STATE OF THE STATE OF T	18 122 124 183 199
11. how the the work it	1 1 1 1
0 14 37 53 66 67 9	18 122 124 183 199
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- A SANT MAN A THURST A SANTAN	
→•→•→•	•
+ 53	
	-
1 1 1 2 - 1 1	-0
total cylindes: - 37-53 + 114	-37 +10-141
	7-651+198-671+
1122-981+	1724-1221+1183-12

= 16+23+14 +6	5+2+31+24+2+
= 236 rylinde	お・
(IV) C-SCAN	many (Just 8th)
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Landrey With Live De to Allin	!
0 14 37 53 65 67	98 122 124 183
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3 .	

	Date :
	total distance = 165-531+167-651+198-671
	+1122-981+1124-1221+
	1183-1241+1199-1831+10-991
	+ 14 -0 + 37 - 14
_	
	= 12+2+31+24+2+59+16+199
_	+14+23
_	
_	= 382 cylinders
_	
_	
	•