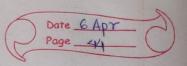
Date 6/04/25 Page 43

TUTORIAL !

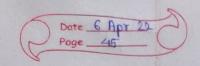
	and a market property of the second s			
QLY	Compare the following MUTUAL EXCLUSION Consider the following			
	parameter to compare various mutual exclusion algorithms			
13	You have to check and validate that these comparisions are			
	Cornet			
10	1) Message Exchanged: messages per entry/exit of critical section			
. 11	· Centralized >>> 00 3			
	Ring 1 >0			
7	Multicast 2xcn-1)			
	2 Delay: Delay before entering entited Section			
	Centralized 2			
	(Ring (0+) In-1 MANHAM (D) (D)			
4-19	Muficost 2 x cn-1)			
	of from Prototy Representation of the contract of			
	some thing and templated being good made			
	Compare and Contrast centralisation and distributed			
	mutual exclusion.			
	I will tribe poster white not be youth Queller			
)	3 Reliability: 1101			
311 30	Centralized: Co-ordinator crashes			
	Ring 1: lost token, processor crashes			
	multicast; any process crashes.			
THE RESERVE TO STREET,	The part of the contract of th			
Then	rolly roll o Answerson mill - months			
Lborna	K Tour pold & Charles 2			
1.7	Message Exchanged & message per entry/ exit of Csy			
	about the man of the land			
	a) Centralized - 3 - (Right)			
	Reason - It requires only three messages to			
	onter and leave a contrad region			
DARK				
	13 Repty & Grant to enter 4			
	3 Release to Exit			



(1) (b) Ring - 1 -> 00 = True Reason - If every process constantly wants to enter critical region, then each token passed will result in one entry and exit, for average of one mestage per critical region entered. At other extreme, to ken may sometimes circulate for hours without onyone being interested in it In this case, the number of messages per entry into critical section is Unbounded. (1) (c) Multicase (Distributed) - 2x (n+1) Reason - O the distributed algorithm requires (n-1) sequest messages, one to each of other process, and additional (n-1) grant messages, making total of 2x(1-1) (2) Delay & time before entering critical section y (2) (a) Centralized - 2 - (Right) phindrilla Reason - It requires only two mestages to entere the critical section - Request & Reply (2) (b) Ring - 0 to (n-1) : No delay Reason - Time varied from O (token just arrived) & (n-1) (token just departed) : It needs to travel remaining m-1) nodes before reaching L (Hpr) + 100 (2) (C) Distributed - 2x (N-1) messages are sent offer one after the other,

11x2 al 331 a

(n-1) request + (n-1) grant messages = [0x cn-1]



2.>	Parameters	Centralized Algorithm	Distributed Algorithm
二	Election	O one process is elected as	10 Total ordering of all
		co-ordinator (Promi	events in the system
\Rightarrow	Message	© Requires 3 messages Repty	D Requires 2* (n-1) messages
	per entry/exi)	to enter and exit control	
	0.4	Section	(a)
7	V	3 2 messages	3 2× (n-1) messages
=>	message time		O mil I and aim aland
7		a) Guarontes mulual Exclusion	a mutual exclusion gravanteed without deadlock
-		5 No Starvalian	6 No starration
		@ Easy to implement	
\Rightarrow	Used for	1 General allocation	@ used for small group.
			processed that do not
		The state of the s	change group membership.
⇒	Problems	1 Entire system con go down	8 N points of failure
		due to single point of	
		Pailure, Rottleneck	(a) Day and and
)	Expense	1 Less Expensive.	10 Les Robust
)		@ More Robust	CO POST TO THAT
-5	Cope up with	(1) Application development	0 - Cluster computing -
=)	Applicancia	(central server + many chients	mony computers work toghether
		Expres L djengo server)	to acheive global goal
		- Data Analysis - : all	- arid computing
		data at one place,	(All resources are popled for
=>	Use case	(1) contralized databases	Service oreinted Architecture
		Deingle player gance - NFB GATA	
		Test server	multiplayer online games
>	organizations	Mational Information conte (India) [Apple, Google, mera]
	using	16M	1 ripple, Google, mera