BHARATIYA VIDYA BHAVAN'S

SARDAR PATEL INSTITUTE OF TECHNOLOGY

MUNSHI NAGAR, ANDHERI (WEST), MUMBAI – 400 058, India (Autonomous College Affiliated to University of Mumbai)

Synoptic

End Semester Examination

Max. Marks: 60 Class: TYMCA

Course Code: MCA51

Subject: Distributed Computing and Cloud Computing

Duration: 3 hr Semester: V Date: 25/11/19

Time: 10.00 to 1.00 pm

Q. No.	Questions	Max. Marks	СО
Q.1 A	How would you construct the model of blocking and nonblocking types of IPC. which is easier to implement and why? Blocking model [2mks] Nonblocking model [2mks] Explanation of each [2mks]	6	1
В	Why do some distributed applications make use of stateless server inspite of the fact that stateful servers provide easier programming paradigm and are typically more efficient than stateless servers? Stateful Server [2mks] Stateless Server[2mks] Diagrammatic Explanation [2mks]	6	1
Q.2 A	Why election algorithms are normally needed in distributed systems? A LAN based distributed system has a broadcast facility. Suggest and elaborate simple election algorithm for use in this system. Bully/Ring algorithm[3mks] Diagrammatic explanation[3mks]	6	2
В	How the shared memory consistency can be maintained in distributed systems with the help of consistency models? Strict ,sequential, Casual, weak , release, PRAM, processor List [1 mark] Explanation [2mks] Example [3marks]	6	2
Q.3 A	How would you Categorize different Thread Models in distributed Computing?	6	3



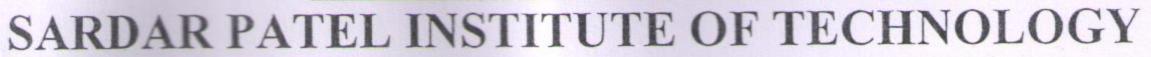
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				Jata	find	out t	he th	llowing and Conclude your answer	6			
F	or th	ie gr	ven	nmei	nt Ex	ecut	ion (& Communication cost & Total cost				
2	2.Optimal Assignment Execution Cost & Communication cost & Total											
	cost											
	Inter	task	Con	nmur	nicati	on c	ost					
		t1	t2	t3	t4	t5	t6					
	t1	0	6	4	0	0	12					
				8	12	3	0					
	t2	6	0									
	t3	4	8	0	0	11	0					
	t4	0	12	0	0	5	0					
	t5	0	3	11	5	0	0					
	t6	12	0	0	0	0	0.					
						1	1					
	Execution Cost											
	Sei	ial A	Assig	gnme	ent :	t1 -	>n1	->n1, t3 ->n1, t4 ->n2, t5 ->n2, t6 ->n2.				
	Optimal Assignment: t1 ->n1, t2 ->n1, t3 ->n1, t4 ->n1, t5 ->n1, t6 -											
		>n2										
	Fo	Formulate Execution cost [2mks]										
	Fo	rmu	late o	comn	nuni	catio	n co	mks]				
	Fo	rmu	late '	Total	cost	t [2m	nks]					
	W	hat i	s an	imm	utab	le fil	e?(a file system be designed to function	6			
	1		1 1			.1 :	****	e files? If no, explain why. If yes,				

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	in this file system for shared files?		
	Mutable files and Immutable files explanation is needed [2mks]		
	Justification with respect to context [4mks]		
Q.4A	Compare Public Cloud and Private Cloud Model	6	4
	Public Cloud [3mks]		
	Private cloud [3mks]		-
D	Cummariza VaaC in vour oven words	6	4
В	Summarize XaaS in your own words Define[1mark]	0	
	Explanation [3mks]		
	Example [2 mk]		
	OR		
	Illustrate virtualization in cloud computing.	6	4
	Explanation[4mks]		
action to account	Types[2mks]		
Q.5A	How would you compare Cloud Computing and Grid computing?	6	4
	Cloud Computing[3mks]		'
	Grid Computing [3mks]		
В	Outline the main characteristics of Cloud computing	6	4
	Each point carries 1 marks for characteristics		
	Resources Pooling		
	On-Demand Self-Service		
	Easy Maintenance		
	Large Network Access		
	Availability		
	Automatic System		
	Economical		
	Security.		