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Question Paper Code: 31264

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Sixth Semester

Computer Science and Engineering

01UCS604 - DISTRIBUTED SYSTEMS

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - $(10 \times 2 = 20 \text{ Marks})$

- 1. What is Distributed system? Give examples.
- 2. Define heterogeneity.
- 3. State the role of middleware in a distributed system.
- 4. Give some of the issues with object-oriented middleware.
- 5. State the purpose of flat file and directory service in a distributed system.
- 6. State the criteria for a replicated object to be consistent.
- 7. Differentiate between logical clock and physical clocks.
- 8. What is atomic commit protocol?
- 9. What is process migration?
- 10. Differentiate between load balancing and load sharing approaches.

PART - B (5 x 16 = 80 Marks)

11. (a) Discuss in detail about the trends and challenges in distributed systems. (16)

	(b)	Explain transparency in distributed systems and give examples for different typ transparencies.	es of (16)
12.	(a)	Discuss the various form of external data representation.	(16)
		Or	
	(b)	Describe in detail the implementation of RPC mechanism with a block diagram.	(16)
13.	(a)	With neat sketch describe the functions of Tapestry algorithm. Also Demonstrate Andrew file system with examples.	strate (16)
		Or	
	(b)	Discuss the case study of the Andrew file system.	(16)
14.	(a)	(i) What are logical clocks? Describe in detail the approaches for implementational logical clocks with examples.	on of (8)
		(ii) Explain the distributed algorithm for mutual exclusion for synchronization suitable examples.	with (8)
		Or	
	(b)	Explain about atomic commit protocols and distributed deadlocks.	(16)
15.	(a)	Explain in detail about Resource Management.	(16)
		Or	
	(b)	Briefly discuss about task assignment approach with suitable example.	(16)