

**PRAGATI ENGINEERING COLLEGE: SURAMPALEM**  
**(AUTONOMOUS)**  
**IV B.Tech II Semester Supplementary Examinations May – 2024**

**DISTRIBUTED SYSTEMS**  
**(CSE)**

Time: 3 hours

Max. Marks: 60

Question Paper Consists of **Part-A** and **Part-B**  
 Answer **ALL** questions from **Part-A**,  
 Answer any **FOUR** Questions from **Part-B**

<b>PART-A</b>					
					<b>[6x2=12M]</b>
<b>Q.No.</b>		<b>Question</b>	<b>BTL</b>	<b>CO</b>	<b>Marks</b>
1.	a)	Define Distributed System? Give any two examples.	K1	CO1	[2M]
	b)	Define Marshalling	K1	CO2	[2M]
	c)	Distinguish between RMI and RPC	K1	CO3	[2M]
	d)	Compare and Contrast between Thread and Process	K2	CO4	[2M]
	e)	Discuss about Routing Overlays	K1	CO5	[2M]
	f)	What is deadlock? How deadlock can be handled.	K1	CO6	[2M]
<b>PART-B</b>					
					<b>[4x12=48M]</b>
2.	a)	State and Explain the Challenges of Distributed System	K2	CO1	[8M]
	b)	Explain the Client-Server Resource Sharing System.	K2	CO1	[4M]
3.	a)	List and Explain the various socket primitives used in TCP stream communication	K2	CO2	[6M]
	b)	Discuss the issues relating to Datagram Communication	K3	CO2	[6M]
4.	a)	Describe the features of Distributed Object Model	K2	CO3	[6M]
	b)	With a neat sketch, Explain the implementation of Remote Method Invocation	K3	CO3	[6M]
5.	a)	Explain the Life Cycle of a Thread with neat state diagram.	K2	CO4	[6M]
	b)	What is the need for protection? Explain various protection mechanisms supported by operating systems.	K3	CO4	[6M]
6.	a)	What is distributed file system? Briefly explain the file service architecture.	K2	CO5	[6M]
	b)	Discuss the Napster and its legacy with respect to distributed file systems.	K2	CO5	[6M]
7.	a)	Discuss in detail about concurrency control in distributed transactions.	K2	CO6	[6M]
	b)	Differentiate between Active and Passive replications	K3	CO6	[6M]