



R18 Regulation

Subject code: 2E6EC

**TKR COLLEGE OF ENGINEERING AND TECHNOLOGY**  
(Autonomous, Accredited by NAAC with 'A+' Grade)

**B.Tech VI Semester Supplementary Examinations, February 2024**  
**Distributed Systems**  
*(Computer Science and Engineering)*

Maximum Marks: 70

Date:15.02.2024 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
  2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
  3. Part B consists of 5 Units. Answer any one full question from each Unit.
  4. Each question carries 10 marks and may have a, b, c, d as sub questions.

**Part-A**

All the following questions carry equal marks (10x2M=20 Marks)		Bloom's Tx	CO
1	List the distributed systems challenges?	L2	CO1
2	What are the three components of security?	L1	CO1
3	Define clock.	L1	CO2
4	Define Synchronization clock.	L1	CO2
5	Define Inter process communication?	L1	CO3
6	List the issues related to stream communication?	L2	CO3
7	List out file system modules.	L2	CO4
8	what are the components of file service.	L1	CO4
9	Define Transactions.	L1	CO5
10	Define Failure atomicity.	L1	CO5

**Part-B**

Answer All the following questions. (5X10M=50Marks)			
11	Explain about the advantages and disadvantages of distributed systems. [10]	L2	CO1
OR			
12	Discuss briefly about the characterization of distributed systems and how resource sharing and the web are accessing. [10]	L2	CO1
13	Discuss in detail about lamport algorithm in logical clock. [10]	L2	CO2
OR			
14	Explain briefly about NTP and Berkeley physical clock algorithms. [10]	L2	CO2
15	Discuss the following: a) UDP datagram communication b) TCP stream communication [5+5]	L2	CO3

	OR		
16	What is marshalling? Explain the marshalling operation in CORBA? [10]	L1	CO3
17	Explain about the File service architecture. [10]	L2	CO4
	OR		
18	Discuss in detail about Sun Network File System architecture. [10]	L2	CO4
19	Compare and contrast between forward and backward validation. [10]	L5	CO5
	OR		
20	Write about time stamp ordering? [10]	L1	CO5