

**K. J. Somaiya Institute of Engineering and Information Technology, Sion, Mumbai-22**  
**(Autonomous College Affiliated to University of Mumbai)**

**End Semester Exam**

April-May (2021-2022)

Program: (B.Tech.) Computer Engineering

Examination: Semester: VIII

Course Code: **1UCEC801** and Course Name: **Distributed Computing**

Duration: 03 Hours

Max. Marks: 60

Instructions:

- (1) All questions are compulsory.
- (2) Draw neat diagrams wherever applicable.
- (3) Assume suitable data, if necessary

		<b>Max. Marks</b>	<b>CO</b>	<b>BT level</b>
<b>Q 1</b>	<b>Solve any six questions out of eight:</b>	<b>12</b>		
i)	Differentiate between tightly coupled and loosely coupled	2	CO1	U
ii)	What are the different issues of Distributed System	2	CO1	U
iii)	Explain the significance of Group communication	2	CO2	U
iv)	What is clock synchronization List the types of it .	2	CO3	U
v)	Why load sharing is better than load balancing	2	CO4	U
vi)	Describe the concept of replication in detail	2	CO5	U
vii)	Differentiate between Unstructured and Structured files	2	CO6	U
viii)	List the file accessing models	2	CO6	U
<b>Q.2</b>	<b>Solve any four questions out of six.</b>	<b>16</b>		
i)	Explain stream oriented communication with suitable example.	4	CO2	U
ii)	List the desirable features of global scheduling algorithm	4	CO4	U
iii)	What is physical clock and explain the types of it	4	CO2	U
iv)	Describe Lamport Algorithm in detail with example	4	CO3	U
v)	Illustrate Andrew file system	4	CO6	U
vi)	Explain different failures in which can occur in RC? also give their solutions.	4	CO5	U
<b>Q.3</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	Explain design issues of load balancing algorithm	8	CO4	U
ii)	Apply Vector Clock and solve the following example.	8	CO3	Ap

iii)	Describe all methods of client consistency	8	CO5	U
<b>Q.4</b>	<b>Solve any two questions out of three.</b>	<b>16</b>		
i)	Illustrate the different types of Distributed Computing.	8	CO1	U
ii)	Write a short note on RMI	8	CO2	U
iii)	Describe File caching schemes	8	CO6	U