SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

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Seat No.						

Institute: (0701) SYMBIOSIS INSTITUTE OF TECHNOLOGY, PUNE

Programme: (070124) BACHELOR OF TECHNOLOGY (IT)
Batch: 2015-19, 2017-21
Semester: VII
Course: Distributed Systems / Distributed Systems and Resource Management
Course Code: 0701210701- IT, 0701240704-IT

Date: 02/06/2021 **Maximum Marks:** 45

Day: Wednesday **Time:** 11:00 pm – 12:30 pm

Instructions:

1. **All questions are compulsory.**
2. **Make suitable assumptions wherever required.**
3. **Neat diagram must be drawn whenever necessary.**

Q.1	**a)**	Draw and explain a typical RPC call and RPC reply message format involved in the implementation of RPC systems.	**5**	**CO1**
	b)	Describe different models used for building distributed computing models.	**5**	**CO1**
Q.2	**a)**	Discuss Ricart and Agarwala algorithm that supports mutual exclusion.	**5**	**CO2**
	b)	Explain in detail Raymond's Tree algorithm with example.	**5**	**CO2**
Q.3	**a)**	What are phantom deadlocks? Mention the necessary conditions for deadlock to occur.	**4**	**CO3**
	b)	What are the types of deadlock? Also explain the condition for deadlock in a system using 'AND' and 'OR' condition with example.	**4**	**CO3**
Q.4		Being fault tolerant is strongly related to dependable systems. Explain.	**6**	**CO4**

Q.5	Describe central server algorithm and migration algorithm for implementing distributed shared memory.	**5**	**CO5**
Q.6	Explain naming resolution in distributed file system with reference to namespace.	**6**	**CO6**

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