BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI (MID SEMESTER EXAMINATION)

CLASS: ΒE SEMESTER: VII BRANCH: IT SESSION: MO/2019 SUBJECT: IT8043 DISTRIBUTED SYSTEM TIME: 1.5 HOURS **FULL MARKS: 25 INSTRUCTIONS:** 1. The total marks of the questions are 30. 2. Candidates may attempt for all 30 marks. 3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored. 4. Before attempting the question paper, be sure that you have got the correct question paper. 5. The missing data, if any, may be assumed suitably. Q1 (a) What is Distributed Systems? Give two examples of Distributed Systems. [2] (b) Explain any three advantages of Distributed Systems. [3] Q2 (a) What is Access transparency and Replication transparency? [2] (b) List five types of hardware resource and five types of data or software resource that can [3] usefully be shared. Give examples of their sharing as it occurs in distributed systems. Q3 (a) Differentiate between Mobile Code and Mobile Agents. [2] [3] (b) Explain Peer-to-Peer Architectural model of Distributed systems. What are the problems with such model? Q4 (a) In context to fault model what are the different kind of fault may occur and what are [2] their effects? (b) What are the network performance parameters? Define latency and data transfer rate. [3] Establish relationship among them. Q5 (a) What is Socket? How sockets are useful in Inter Process Communication? [2] (b) Compare Circuit Switching and Packet Switching. [3] Q6 (a) With a diagram show the client server communication. In this context describe the [2]

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[3]

structure of request-reply message.

(b) What is Marshalling? Give example of Marshalling in CORBA.