

**BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)**

**CLASS: BCA
BRANCH: BCA**

**SEMESTER : VI
SESSION : SP/2024**

SUBJECT: CA328 DISTRIBUTED DATABASE SYSTEM

TIME: 3 Hours

FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
 2. Attempt all questions.
 3. The missing data, if any, may be assumed suitably.
 4. Before attempting the question paper, be sure that you have got the correct question paper.
 5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q.1	Define Distributed Database and Distributed DBMS. Discuss the problem areas in DDBS Environment. Differentiate Between Homogeneous and Heterogeneous Distributed DBMSs.?	[10]	1	2
Q.2	Draw the Reference Architecture of Distributed DBMS. Briefly Explain details of The Architecture.?	[10]	2	1
Q.3	Discuss the objectives of distributed query processing. Why global query optimization is difficult in Distributed DBMS. Compare various Distributed Query Optimization Algorithms.?	[10]	3	2
Q.4	Define a Transaction. Discuss the ACID properties of a Transaction. Explain Distributed Serializability.?	[10]	4	1
Q.5	Write down the possible types of failures in a distributed system. Discuss the different communication structures for 2PC Protocol.?	[10]	5	1

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