Birla Institute of Technology
End Semester Examination

Subject: Distributed database Concepts (CA431)		**Session :SP2022**
Semester-III		Branch: MCA
		Full Marks: 50
	Answer All Questions	
Q1.(a)	Explain the difference between a shared memory and a shared disk multiprocessor.	2
Q1.(b)	Give any three difficulties faced during implementation of DDBMS?	3
Q2.(a)	Explain two features of DDBMS that make it advantageous.	2
Q2.(b)	What is network and location transparency? Explain with an example.	3
Q3.(a)	How is DBMS standardization done?	2
Q3.(b)	Draw the representation for components of a distributed DBMS.	3
Q4.(a)	What are the information requirements in a DDBMS during allocation?	2
Q4.(b)	How do you compute fragmentation effort with the help of attribute affinity matrix?	3
Q5.(a)	Compare Distributed Deadlock prevention to Distributed Deadlock Avoidance. Explain one scheme of Distributed deadlock Detection and Recovery.	5
Q5.(b)	Compare features of basic, conservative and multiversion TO. Is it better than Optimistic concurrency control?	5
Q6.(a)	What is centralized and hierarchical deadlock detection.	2
Q6.(b)	Explain how consistency is maintained in a transaction that has dirty reads.	3
Q7.(a)	Explain with an example the steps of the Bond Energy Algorithm.	2
Q7.(b)	Explain clustering algorithm using matrices.	3
Q8.(a)	Explain the role of Semi-joins in query optimization. Compare features of static and dynamic query processing	5
Q8.(b)	Draw a neat labelled diagram representing the layers of query processing in distributed environment. Highlight the role of each layer.	5

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