1T01235 - T.E.(Information Technology Engineering)(SEM-V)(Choice Base Credit Grading System) (R-19) (C Scheme) / 32426 - Department Optional Course-I: Advance Data Management Technologies 10039244

Time:3 hrs   **Max. Marks:80**

N.B.:
1. **Question no. 1 is compulsory.**
2. Attempt **any Three** out of remaining **Five** questions.
3. Assume suitable data wherever necessary.
4. Figures at right indicates full marks.

Q.1	a.	Discuss the role CAP theorem in NoSQL Databases.	**05**
	b.	Explain nested loop join in detail.	**05**
	c.	Discuss the Role Based access control.	**05**
	d.	What is ETL. Discuss role of ETL in data warehousing.	**05**
Q.2	a.	Explain Discretionary Access control, Mandatory Access Control with suitable examples.	**10**
	b.	Draw and explain federated data warehouse architecture. Also discuss the role data marts in data warehouse in detail.	**10**
Q.3	a.	Differentiate between star and snowflake schema. Draw the star schema for library management system and explain in brief.	**10**
	b.	Differentiate between traditional Data and Big Data. Also discuss various characteristics of Big Data	**10**
Q.4	a.	Discuss the Distributed Database System. Discuss the need of Distributed Database system. Also explain various Data Fragmentation techniques in detail.	**10**
	b.	Explain MOLAP, ROLAP, HOLAP in detail.	**10**
Q.5	a.	Explain Query Processing Mechanism in details.	**10**
	b.	Enlist four NoSQL Architectural Patterns. Discuss any two Architectural pattern in detail.	**10**
Q.6		Write Short Note on	
	a.	Mobile and Spatial Database.	**10**
	b.	Data Loading Methods in Data warehouse.	**10**

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