Paper / Subject Code: 32403 / Advanced Data Management Technology

21-Nov-2019 1T01225 - T.E.(Information Technology Engineering)(SEM-V)(Choice Base) / 32403 - Advanced Data Management Technology 78123

Time: 3 hours

Marks: 80

l.B.:	 Question no. 1 is compulsory. Attempt any Three from remaining questions. 		
	3. G	ive examples wherever required.	
Q 1	a	List out the twelve rules for distributed DB.	55
	b	Explain Shared Memory and Shared Nothing Architecture for Parallel DBs.	5
	c	Why BCNF is called as stricter than 3NF? Justify your answer.	5
	d	What is Materialized View, What is its utility?	5
			2,22
Q 2	a	Explain Discretionary Access Control, Mandatory Access Control and Role- Based Access Control in brief.	10
	b	Explain Significance of each step in ETL Process, also explain types of data extraction and data transformation.	10
Q 3	a	Explain Sort-Merge Join and HASH Join.	10
	b	Explain Wait- Die and Wound-Wait methods for Deadlock Prevention.	10
		Compare them in terms of no. of Possible rollbacks and Starvation.	
Q 4	a	Explain Star and Snow Flake Schema. Specify their Pros and Cons.	10
	b	Explain Aries Algorithm in detail.	10
Q 5	a	Consider a data warehouse for weather related data like region, date and temperature. Using this example explain all the OLAP operations	10
	b	Explain Primary Horizontal, Derived Horizontal and Vertical	10
	5500	Fragmentation with example. Comment on Completeness,	
		Reconstruction and Disjointness Properties.	
Q 6		Short Note on:	
	a	Temporal databases	5
	b	Spatial Databases	5
	C	Inconsistent read, fuzzy read and phantom read problems in concurrent	5
		schedules.	
	Od.	Data Marts	5
