Question Paper Code	12814

M.E. / M.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024

First Semester

M.E. - Computer Science and Engineering
20PCSPC102 - ADVANCED DATABASES

Regulations - 2020

Duration: 3 Hours   Max. Marks: 100

PART - A (10 × 2 = 20 Marks)
Answer ALL Questions

		Marks	K-Level	CO
1.	What are the differences between client server and centralized database system architectures?	2	K2	CO1
2.	Define ACID properties in transaction processing.	2	K1	CO1
3.	List the components of Deductive databases	2	K1	CO2
4.	Differentiate fact table and dimension table.	2	K2	CO2
5.	Mention the goal of XML database.	2	K1	CO3
6.	Why XML models is called hierarchical model?	2	K2	CO3
7.	Mention the significance of handoff management.	2	K1	CO4
8.	Distinguish the shared lock and exclusive lock modes.	2	K2	CO4
9.	What are multidimensional databases used for?	2	K1	CO5
10.	Which database is best for storing videos?	2	K1	CO5

PART - B (5 × 13 = 65 Marks)
Answer ALL Questions

				Marks	K-Level	CO
11.	a)	i)	Explain the various ways in which the Concurrency control can be achieved in a database.	7	K2	CO1
		ii)	Elaborate about how the Distributed query Processing is done.	6	K2	CO1
			OR			
	b)		Explain parallel databases with inter and intra query parallelism.	13	K2	CO1
12.	a)		Discuss about Temporal Database and TSQL2.	13	K2	CO2
			OR			
	b)		What are Spatial data structures? Explain any two in detail.	13	K2	CO2
13.	a)		Illustrate the role of DTD and XML schema in formation of XML documents.	13	K2	CO3
			OR			

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

b) Write short notes on:- i) Native XML Databases	7	K2 CO3
ii) Web Databases	6	K2 CO3

14. a) Explain about the transaction commit protocol in mobile database system.   13   K2   CO4

<div align="center">OR</div>

    b) Discuss in detail about the effect of mobility on Data Management.   13   K2   CO4

15. a) Illustrate the techniques involved in Audio Databases and explain each one of them.   13   K2   CO5

<div align="center">OR</div>

    b) i) Interpret the key features of document databases. How much easier are documents to work with than tables?   7   K2   CO5

      ii) Elaborate how the document databases different from relational databases?   6   K2   CO5

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PART - C (1 × 15 = 15 Marks)

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16. a) Summarize the insertion, deletion, search and range query operation in k-d tree.   15   K2   CO6

<div align="center">OR</div>

    b) Illustrate how to store and retrieve images from a MySQL database using PHP.   15   K2   CO6