Reg. No.												

Question Paper Code	12364

M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2023

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 limitations of client server architecture?	*2,K1,CO1*
2.	Define commit protocol. Mention its types.	*2,K1,CO1*
3.	What are active rules in Database?	*2,K1,CO2*
4.	Compare spatial and non spatial data types in DBMS.	*2,K2,CO2*
5.	What is XQuery?	*2,K1,CO3*
6.	List the uses of Web databases.	*2,K1,CO3*
7.	Define Handoff.	*2,K1,CO4*
8.	Identify the challenges in Mobility Data Management.	*2,K2,CO4*
9.	Which DB is best for storing videos?	*2,K1,CO5*
10.	Discuss about the content of MDBMS.	*2,K2,CO5*

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	Describe about Deadlock handling and deadlock Management in distributed system.	*13,K2,CO1*
		OR	
	b)	(i) Explain the different architecture of Parallel databases.	*7,K2,CO1*
		(ii) Explain the key properties which are used to measure parallel database performance.	*6,K2,CO1*
12.	a)	What is Deductive database? Explain with example how the deductive database system can make deductions based on rules and facts stored in databases.	*13,K2,CO2*
		OR	
	b)	Examine the features, need and usage of Active Database with examples.	*13,K2,CO2*
13.	a)	Interpret about XML Querying with suitable example.	*13,K3,CO3*

OR

b) Illustrate a XML tree structure for storing the book details and student details of a library. *13,K3,CO3*

14. a) Write detailed notes on concurrency control in mobile database. *13,K3,CO4*

OR

b) Enumerate the mobile transaction model and explain each with a neat diagram. *13,K3,CO4*

15. a) Discuss in detail about the design and architecture of Multimedia Database and its issues. *13,K2,CO5*

OR

b) Explain in detail about the video databases with neat diagram. *13,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) In a hospital, there are five special patients. Each one has a specific disease. That's why they are distributed in separate rooms because they all have different backgrounds. Each has a specific ethnicity, blood type and age. It is found that: *15,K3,CO6*

1- Tony is African.
2- Paul has blood type O-.
3- The Aussie patient is 50 years old.
4- Amy is 42 years old.
5- The Aussie's room is on the right of the European one.
6- The Tuberculous patient has blood type AB.
7- The Asian patient is Asthmatic.
8- The 19 years old patient's room is in the middle.
9- John is in the first room on the left.
10- The Amnesic patient's room is beside of the patient with blood type A.
11- The Asthmatic patient's room is beside of the patient with blood type B.
12- The Obese patient is 31 years old.
13- Mary has diabetes.
14- John's room is beside the latino patient.

Represent the above dataset in table format and also specify the same information using Datalog and SQL

OR

b) Interpret with an example the various Image Acquisition techniques and storage techniques. *15,K3,CO6*