Reg. No.															

Question Paper Code	13351

M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2024 (JAN - 2025)
First Semester
M.E. - Computer Science and Engineering
20PCSPC102 / 24PCSPC102 - ADVANCED DATABASES
Regulations - 2020 / 2024

Duration: 3 Hours   Max. Marks: 100

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

		Marks	K–Level	CO
1.	List the two main measures of performance of a database system.	2	K1	CO1
2.	What are the various approaches for evaluation of other relational operations?	2	K1	CO1
3.	State the purpose of spatial database.	2	K1	CO2
4.	Outline how temporal database differ from regular database.	2	K2	CO2
5.	List the XML related technologies.	2	K1	CO3
6.	Explain the role of Web databases.	2	K2	CO3
7.	Identify the properties of mobile Database.	2	K2	CO4
8.	Define Handoff.	2	K1	CO4
9.	Describe about Image Databases.	2	K2	CO5
10.	Explain how to write a recursive query in SQL.	2	K2	CO6

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

		Marks	K–Level	CO
11. a)	i) Describe Centralized and client server architecture with neat diagram.	7	K2	CO1
	ii) Explain in detail about the Distributed Data Storage.	6	K2	CO1
	OR			
b)	Explain in detail about the commit protocol implemented in distributed database systems.	13	K2	CO1
12. a)	Describe about the syntax and semantics in Starburst, Oracle and DB2 with suitable example.	13	K2	CO2
	OR			
b)	Illustrate the purpose of spatial Data Structures with suitable example.	13	K2	CO2
13. a)	Describe about the following in detail			
	i) Well-formed XML Document.	7	K2	CO3
	ii) XML Schema.	6	K2	CO3

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create   ***13351***

OR

b) Describe in detail about Open Database Connectivity. *13 K2 CO3*

14. a) Summarize how the location and Handoff management can be *13 K2 CO4*
    performed in mobile databases.

OR

b) Explain about the transaction commit protocol in mobile database *13 K2 CO4*
   system.

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

OR

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

PART - C (1× 15 = 15 Marks)

16. a) Analyze the typical syntactic structure of a DTD document with suitable *15 K4 CO6*
    example and construct a XML schema document to hold the employee
    details of a company.

OR

b) i) Examine the key features of document databases. How much easier are *10 K4 CO6*
   documents to work with than tables?

   ii) Compare and contrast the document databases and the relational *5 K4 CO6*
   databases.