19/05/2025 SE CSE-AIML SEM-IV C-SCHEME DMS QP CODE: 10085389

Duration: 3 Hours   **[Max Marks:80]**

N.B.:   (1) Question No 1 is Compulsory.
         (2) Attempt any three questions out of the remaining five.
         (3) All questions carry equal marks.
         (4) Assume suitable data, if required and state it clearly.

1		**Solve any two out of three questions.**	**[20]**
	A	What is DDL and DML commands. Write syntax and examples for DDL and DML commands.	**[10]**
	B	Discuss with suitable example Extended E-R features Specialization, Generalization and aggregation.	**[10]**
	C	Explain any five relational algebra operators with suitable example.	**[10]**
2	A	Explain different types of users for database system and explain responsibilities of DBA.	**[10]**
	B	What is Normalization. Explain 1 NF,2 NF,3NF with suitable example.	**[10]**
3	A	i) Explain ACID properties of transaction. ii) In a Hospital Management System there are many departments and many patients. Doctors work in various departments and treat multiple patients. Patients undergo multiple tests, and each test is conducted by lab technicians under a specific department. Consider the above scenario and draw an E-R diagram. (Represent proper cardinalities)	**[10]**
	B	Explain types of joins with suitable example.	**[10]**
4	A	Define trigger. Explain syntax of trigger with suitable example.	**[10]**
	B	Discuss 2PL with its types	**[10]**
5	A	I) Write the SQL expression for the following. customer(cust_id, cname, caddress, ph_no, balance) i) Find the names of customers whose name starts with the letter 'A'. ii) Add one record with the values (105, 'Rakhi', 'Malad', 9826756045, 3400). iii) Remove the data of the customer whose name is 'Abhay' and phone number is 8890654312. iv) Find the total number of customers. II) Define view. Write syntax of creation of view considering suitable example.	**[10]**
	B	Explain conflict serializability with suitable example.	**[10]**
6	A	Write a note on Time stamp ordering protocol.	**[10]**
	B	Explain deadlock handling.	**[10]**

_____

X525YFFEB69X525YFFEB69X525YFFEB69X525YFFEB69