GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER–III (NEW) - EXAMINATION – SUMMER 2018

Subject Code:2130703   **Date:23/05/2018**
Subject Name:Database Management Systems
Time:10:30 AM to 01:00 PM   **Total Marks: 70**
Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

			MARKS
Q.1	**(a)**	Define view. Write syntax to create view .Give an example of view.	**03**
	(b)	Explain tasks of DBA.	**04**
	(c)	Explain disadvantages of conventional file-based system compared to Database management system.	**07**
Q.2	**(a)**	List and explain DML statements with suitable example.	**03**
	(b)	Define: Primary key, Foreign Key and NOT NULL constraint	**04**
	(c)	Explain three level architecture of DBMS.	**07**
		OR	
	(c)	Explain different types of outer join with example.	**07**
Q.3	**(a)**	Write a note on two phase commit protocol.	**03**
	(b)	List and explain aggregation functions with suitable example.	**04**
	(c)	Explain specialization and generalization concepts in ER diagram with suitable example.	**07**
		OR	
Q.3	**(a)**	Write a note on trigger.	**03**
	(b)	Compare rollback with commit SQL commands.	**04**
	(c)	Draw E-R diagram for bank management system.	**07**
Q.4	**(a)**	Write differences between shared lock and exclusive lock.	**03**
	(b)	Define transaction. Explain various states of transaction with suitable diagram.	**04**
	(c)	Explain steps of query processing with the help of neat diagram.	**07**
		OR	
Q.4	**(a)**	Describe GRANT and REVOKE commands.	**03**
	(b)	Write a note on two phase locking protocol.	**04**
	(c)	Explain stored procedure with proper example.	**07**
Q.5	**(a)**	What is log based recovery? Explain Immediate database modification technique for database recovery.	**03**
	(b)	List and discuss ACID properties of transaction.	**04**
	(c)	Write a note on conflict serializability.	**07**
		OR	
Q.5	**(a)**	What is deadlock of transaction? Explain wound wait technique for prevention of deadlock.	**03**
	(b)	Elaborate Normalization. Explain any two normal forms with suitable example(s).	**04**
	(c)	Consider following schema and write SQL for given statements. Client_master(clientno, name, address, city, pincode, state, baldue) Product_master(productno, name, profitpercent, unitmeasure, sellprice, costprice) Salesman_master(Salesmanno,name,address,city,pincode,state,salary,tgtotget, remarks)	**07**

1) Find out the names of all clients.
2) List all the clients who are located in Mumbai.
3) Delete all salesmen from salesman_master whose salaries are equal to Rs.3500.
4) Destroy the table client_master along with data.
5) List the name of all clients having 'a' as the second letter in their names.
6) Count the number of products having cost price is less than or equal to 500.
7) Calculate the average, minimum and maximum sell price of product.

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