

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (CSE) (Sem.-5)
DATABASE ADMINISTRATION

Subject Code : CS-305

Paper ID : [A0466]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**Answer briefly :**

- Q1 Explain in brief the term Metadata.
- Q2 Define weak and strong entity sets.
- Q3 What is a super key?
- Q4 What is a Relation Schema and a Relation?
- Q5 What are the unary operations in Relational Algebra?
- Q6 What do you mean by SQL? What are the characteristics of SQL?
- Q7 What is Functional Dependency?
- Q8 Define lock. What are the different modes of lock?
- Q9 What are the different phases of transaction?
- Q10 Why is concurrency control needed?

SECTION-B

- Q11 Write a detailed note on Database Language and Interfaces.
- Q12 Explain the Insert, Delete and Update statements in SQL with example.
- Q13 Explain the following relational algebra operations with example
- a) Select
 - b) Project
 - c) Union
- Q14 Write a detailed note on Concurrency control based on Timestamp ordering.
- Q15 Write a detailed note on shadow paging recovery technique with example.

SECTION-C

- Q16 Write a detailed note on advantages and disadvantages of using DBMS.
- Q17
- a) Write a detailed note on Tuple Relational calculus.
 - b) Write a brief note on Discretionary Access Control based on Granting and Revoking of Privileges.
- Q18 What do you mean by Functional Dependencies? Explain in detail various normal forms based on Primary keys with suitable example.