

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA - SEMESTER-V • EXAMINATION – WINTER 2015

Subject Code: 2650004**Date:08/12/ 2015****Subject Name: Advanced Data Base Management Systems (ADBMS)****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.

- Q.1** (a) Define/explain following terms:
- | | |
|-----------------|-----------|
| 1. SQL/CLI | 03 |
| 2. Data Models. | 02 |
| 3. SQL*Loader | 02 |
- (b) Discuss the guidelines for physical database design in RDBMS. **07**
- Q.2** (a) Answer the following concept in brief.
- | | |
|--------------------------|-----------|
| 1.Prolog Versus Datalog. | 03 |
| 2.Buffering of Blocks. | 02 |
| 3.Conceptual Schema. | 02 |
- (b) What is Spatial Database? Explain different types of Spatial queries. **07**
- OR**
- (b) What is Temporal Database? Discuss benefits of Temporal Database giving example. **07**
- Q.3** (a) What is write-ahead logging? Explain steal/no steal and force/ no force. **07**
- (b) Compare the primary copy method with primary site method for distributed concurrency control. When voting method is used in distributed database? **07**
- OR**
- Q.3** (a) Discuss the deferred update technique of recovery. What are the advantages and disadvantages of this technique? Why is it called No-UNDO/REDO method? **07**
- (b) Discuss the merits and demerits of proving secondary indexes and primary indexes. **07**
- Q.4** (a) Explain five level schema architecture in a federated database system. **07**
- (b) Discuss four main control measures used to provide Security in Databases. **07**
- OR**
- Q.4** (a) Explain Concept of Oracle Net Configuration, Service Name and Listener. **07**
- (b) What are the goals of database tuning? Explain the process of tuning the indexes. **07**
- Q.5** (a) Write a short note on Mobile computing architecture. **07**
- (b) Explain characteristics of data in GIS. **07**
- OR**
- Q.5** (a) List the object relational features included in SQL-99. Give an example with syntax. **07**
- (b) What is multimedia database? Explain its data management issues. **07**
