

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Computer Engineering

(Wireless Mobile Computing)

Semester: II

Subject Name: **Mobile Databases (Elective III & IV- Group 2)**

Subject Code: **725306**

Course Content:

Mobile Database:

Introduction, Fully Connected Information Space, Types of Mobility

Fundamentals of Database Technology:

Conventional Database Architecture, Database Processing, Serialization of Transaction
Advanced Transaction Model

Concurrency Control Mechanism:

Introduction, ways of locking data items, The Phantom Problem, Multigranularity locking, Heuristics approach in locking scheme, Non locking based schemes

Data Processing and Mobility:

Introduction, Effect of mobility on the management of data, Data Categorization, Location dependent data distribution

Transaction management in Mobile Database systems:

Mobile Database systems, Transaction execution in MDS, Mobile Transaction Model, and Execution model on ACID transaction framework, pre-write transaction execution model, and data consistency in intermittent connectivity.

Mobile database Recovery:

Introduction, Log Management in Mobile Database systems, Mobile database recovery scheme

Text Book:

1. Mobile Database Systems (Wiley Series on Parallel and Distributed Computing)