## CSL4206: DATABASE MANAGEMENT SYSTEM

## **SYLLABUS FOR SESSIONAL TEST 2**

- Binary Relational Operations(Join, Division), Aggregate Functions and Grouping,
- **Tuple Relational Calculus**
- Query by example
- Introduction to Normalization, their practical uses.

Functional Dependencies (Fully, Transitive, Multivalued, Join Dependencies)

1<sup>st</sup> Normal Form

2<sup>nd</sup> Normal Form

 $3^{rd}$  Normal Form

Boyce Codd Normal Form(BCNF)
4<sup>th</sup> Normal Form, 5<sup>th</sup> Normal Form, 6<sup>th</sup> Normal Form

- Introduction to Transaction and its desirable properties.
- System Log, Schedules
- Characterizing Schedules based on Recoverability & Serializability
- Integrity constraints: Primary key, Unique, Not null, Check
- Integrity constraints: Foreign key, default
- Logical and arithmetic operators
- Relational operators and Miscellaneous operators: like, in , between, ||,Not in, Not Like, Not between
- Single row function (aggregated functions): Sum, count, max, min, avg
- Sql functions: Date, Numeric, character, Conversion functions
- DCL commands (GRANT, REVOKE) To manage the database administrator role
- Implementing TCL commands (COMMIT, ROLLBACK, SAVEPOINT, SET TRANSACTION)