|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 09 | 8 | 02 | 3 | Chapter 1  Introduction, Characteristics of Database Approach, Files Vs. Databases, Characteristics of  Database approach, Advantages of using DBMS, When not to use DBMS. | AHMED AWAIS |  |
| 09 | 10 | 02 | 3 |  |
| 09 | 15 | 03 | 3 | Chapter 2  Data Model, Schema and Instance, three schema architecture and data independence, classification of DBMS, database languages & Interfaces, Database systems environment.  Basic SQL Syntax Discussion |  |
| 09 | 17 | 03 | 3 |  |
| 09 | 22 | 04 | 3 | Chapter 3  Using High-Level Conceptual Data Models for Database Design, A Sample Database Application. Entity Types, Entity Sets, Attributes, and Keys, Relationship Types, Relationship Sets, Roles, and Structural Constraints, Weak Entity Types, Refining the ER Design for the COMPANY Database, ER Diagrams, Naming Conventions, and Design Issues, Relationship Types of Degree Higher than Two  **Test of Chapter #1,2,3** |  |
| 09 | 24 | 04 | 3 |  |
| 09 | 29 | 05 | 3 |  |
| 10 | 01 | 05 | 3 | Chapter 5  Relational Model Concepts, Relational Model Constraints  Relational Database Schema, Update Operations, Transactions, and Dealing with Constraint Violations |  |
| 10 | 06 | 06 | 3 |  |
| 10 | 08 | 06 | 3 | Chapter 6  SQL Data Definition and Data Types, Specifying Constraints in SQL, Basic Retrieval Queries in SQL, INSERT, DELETE, and UPDATE Statements in SQL, Additional Features of SQL  **Test of Chapter #5 and 6** |  |
| 10 | 13 | 07 | 3 |  |
| 10 | 15 | 07 | 3 |  |
| 10 | 20 | 08 | 3 | Chapter 7  More Complex SQL Retrieval Queries, Views (Virtual Tables) in SQL, Schema Change Statements in SQL  **Project Discussion : Proposal Submission Deadline 22nd Oct 20205** |  |
| 10 | 22 | 08 | 3 |  |
| 10 | 27 | 09 | 3 | Chapter 14  Informal Design Guidelines for Relation Schemas  Functional Dependencies/Normal Forms Based on Primary Keys General Definitions of Second and Third Normal Forms, Boyce-Codd Normal Form  Multivalued Dependency and Fourth Normal Form  Join Dependencies and Fifth Normal Form  **Test of Chapter# 6, 7, and 14** |  |
| 10 | 29 | 09 | 3 |  |
| 11 | 03 | 10 | 3 |  |
| 11 | 05 | 10 | 3 | Chapter 20  Introduction to Transaction Processing  Transaction and System Concepts Desirable Properties of Transactions Characterizing Schedules Based on Recoverability  Characterizing Schedules Based on Serializability  Transaction Support in SQL |  |
| 11 | 10 | 11 | 3 |  |
| 11 | 12 | 11 | 3 |  |
| 11 | 17 | 12 | 3 |  |
| 11 | 19 | 12 | 3 | **Grand Test**  Recap of all course and |  |
| 11 | 24 | 13 | 3 |  |
| 11 | 26 | 13 | 3 |  |