Lesson Plan Schedule: From 01.09.2023 to 15.12.2023 (15 Weeks)

Named Teacher : Pooja
Discipline : Computer Engineering
Semester : 3rd
Subject : DBMS- Data Base Management System

Work load (Lecture/Practical) per week (in hours): Lectures-02, Practicals-04/ Group

Week	Lecture /Day	Theory Topic Covered (Including assignment/test)	Lab /Week	Practical Performed
1	1	Introduction to Database system Concepts	G1 /G2	Over view, features, function of MS -Access
	2	Introduction to Architecture Database Systems. Database and its purpose		
2	1	Characteristics of the database approach. Advantages and disadvantages	G1 /G2	Application developments in MS-Access
	2	Classification of DBMS Users, Actors on the scene		
3	1	Database Administrators, Database Designers. End Users, System Analysts and Application Programmers	G1 /G2	Practice in MS-Access
	2	Workers behind the scene (DBMS system designers and implementers, tool developers, operator and maintenance personnel)		
4	1	Data models, schemas, instances, data base state. DBMS Architecture; The External level.	G1 /G2	Exercises on Creation and Modification of structure of tables.
	2	The conceptual level, The internal level, Mappings. Data Independence. Logical data Independence, Physical data Independence.		
5	1	Database Languages and Interfaces Classification of Database Management Systems- Centralized, Distributed, parallel and object based.	G1 /G2	Exercises on Creation and Modification of structure of tables.
	2	**Seminar Assignment-1**		
6	1	**Sessional Test-1**	G1 /G2	Exercise on inserting and deleting values from table.
	2	Data Modeling using E.R. Model (Entity Relationship Model) and Relational Data Models Classification. File based or primitive models, traditional data models, semantic data models.		
7	1	Entities and Attributes, Entity types and Entity sets. Key attribute and domain of attributes, Relationship among entities, Database design with E/R model.	G1 /G2	Exercise on inserting and deleting values from table.
	2	Relational Model Concepts: Domain, Attributes, Tuples cardinality, keys (Primary, Secondary, foreign, alternative keys) and Relational constraints and relational database schemes		

8	1	Domain constraints, Key constraints and constraints on Null. Relational databases and relational database schemes, Entity integrity, referential integrity and foreign key.	G1 /G2	Exercise on querying the table (using select command).
	2	Comparison b/w E/R model and Relational model Normalization Trivial and Non-trivial Dependencies		
9	1	Non-loss decomposition and functional dependencies. First, Second and Third normal forms, Boyce/Codd normal form, de normalization.	G1 /G2	Exercise on querying the table (using select command).
	2	**Seminar/ Doubt Session Assignment-2**		
10	1	**Sessional Test-2**	G1 /G2	Exercise on using various types of joins.
	2	Database Access and Security. Creating and using indexes		
11	1	Creating and using views	G1 /G2	Exercise on using various types of joins.
	2	Database security, process controls, database protection, grant and revoke.		
12	1	MYSQL/SQL (Structured Query Language)	G1 /G2	Exercise on using functions provided by database package.
	2	SQL* DDL (Data Definition Languages): Creating Tables, Creating a table with data from another table		
13	1	Inserting values into a table, updating columns of a Table, Deleting Rows, Dropping a Table. DML (Data Manipulation Language)	G1 /G2	Exercise on using functions provided by database package.
	2	Database Security and Privileges, Grant and Revoke Command, Maintaining Database Objects, Commit and Rollback, various types of select commands		
14	1	Various types of joins, sub query, aggregate functions. Challenges of My SQL.	G1 /G2	Exercise on commands likes - Grant, Revoke, Commit and Rollback etc.
	2	Introduction to Big Data. Understanding Big Data with samples		
15	1	**Assignment-3 Interaction on Syllabus Covered**	G1 /G2	Exercise on commands likes - Grant, Revoke, Commit and Rollback etc.
	2	**Sessional Test-3**		