GOVERNMENT POLYTECHNIC PANCHKULA

LESSON PLAN

Name of Faculty: **NEHA MIDHA**

Discipline: **COMPUTER ENGG.**

Semester: **4th**

Subject: **DBMS**

Work Load (Lecture/Practical) per week(in hours):**Lectures-03,Practicals-03**

Week	Theory		Practical	
1st Week	1st Day	Unit:1 Introduction 1.1 Database Systems 1.1.1 Introduction to Database and its purpose 1.1.2 Introduction to Database system 1.1.3 Why Database 1.1.4 History of Database System 1.1.5 Characteristics of the database approach	1st Day	Overview, Features and functionality in MS-Access.
	2nd Day	1.1.6 Advantages and disadvantages of database systems		
	3rd Day	1.1.7 Introduction to Conventional File System 1.1.8 Concept of files ,record, data, information retrieval.		
2nd Week	4th Day	1.1.9 Comparison between Conventional System and DataBase System	2nd Day	Application development in MS-Access
	5th Day	1.2.1 Actors on the scene		
	6th Day	1.2.2 Database Administrators, Database Designers, End Users, System Analysts and Application Programmers		
3rd Week	7th Day	1.2.3 Workers behind the scene (DBMS system designers and implementers, tool developers, operator and maintenance personnel)	3rd Day	Practice on Application development in MS-Access
	8th Day	1.2.4 History of data base System		
	9th Day	Test		

4th week	10th Day	Unit2:Database System Concepts and Architecture 2.1Data models: (Physical Model, Object based Model)	4th Day	Exercises on different forms of select statement in SQL.
	11th Day	Record based Model Network Model, Heirachical Model		
	12th Day	Schemas, sub schemas instances, data base state.		
5th Week	13th Day	Case Study of models and schemas (examples student information System)	5th Day	Practical Lab Test
	14th Day	2.2 DBMS Architecture: Three Level of Architecures 2.2.1 The External level 2.2.2 The conceptual level 2.2.3 The internal level 2.2.4 Mapping		
	15th Day	2.3 Data base Administrator and Administration, Database Management System – Advantage and Disadvantage		
6th week	16th Day	Classification of DBMS, DBMS Interfaces	6th Day	Exercises on different forms of altering of tables in SQL.
	17th Day	2.4 Concept of centralized and Client /Server Architecture for DBMS: Single Tier, Two Tier and Three Tier		
	18th Day	2.5 Data Independence 2.5.1 Logical data Independence 2.5.2 Physical data Independence		
7th week	19th Day	2.6 Database Languages and Interfaces 2.6.1 DBMS Language 2.6.2 DBMS Interfaces	7th Day	Exercises on droping of tables in SQL.
	20th Day	2.7 Classification of Database Management Systems:Centralized, Distributed Parallel and Object based Models		
	21st Day	Test		
8th week	22nd Day	Unit3: Data Modeling using E.R. Model (Entity Relationship Model) 3.1Data Models Classification : File based Models	8th Day	Exercises on creation of tables
	23rd Day	Primitive models		
	24th Day	3.2 Entities and Attributes		

9th week	25th Day	3.3 Entity types and Entity sets	9th Day	Practice in SQL
	26th Day	3.4 Key attribute and domain of attributes		
	27th Day	3.5 Relationship among entities		
10th week	28th Day	3.6 Database design with E/R model	10th Day	Practical Lab Test
	29th Day	3.7 ER Design Issues		
	30th Day	3.8 Mapping Constraints		
11th week	31st Day	Test	11th Day	Exercises on insertion of data into tables
	32nd Day	Unit 4 : Relational Model: 4.1 Relational Model Concepts: Domain, Attributes,Tuples		
	33rd Day	4.1 Cardinality, Keys(Primary, Secondary Keys)		
12th week	34th Day	4.1 Alternative Keys,Candidate Keys etc	12th Day	Practice in SQL
	35th Day	4.1 Relations in detail		
	36th Day	Test		
13th week	37th Day	Unit 5 :Structured Query Language(Introduction) Data definition language : Create, Alter, Drop commands	13th Day	Exercises on UPDATE statement
	38th Day	5.1 Data Manipulation Language (DML)		
	39th Day	5.2 Select command with where clause using conditional expressions.		
14th week	40th Day	Update Command,Alter Command	14th Day	Practical in SQL
	41st Day	Various Queries in SQL		
	42nd Day	Boolean operators, Group by clause		
15th week	43rd Day	Like Operator	15th Day	Practical Lab Test
	44th Day	5.3 Insert, Update and Delete commands		
	45th Day	Test		