

Lesson Plan

Semester : 4th (Even)
Subject : Database Management Systems (PCC- CSE207-T)

Week	Theory		Topic Covered Date and Remarks		
	Lecture- Day	Topic (Including Assignment/Test)	Date	HOD	Director-Principal
1 st	1	Overview of database and DBMS			
	2	File System Vs DBMS			
	3	Characteristics of Database approach			
	4	User of Database			
2 nd	5	Advantages and Disadvantages of DBMS over file processing systems			
	6	Responsibility of Database Administrator			
	7	Database System Concept and Architecture			
	8	Data Models (Network, Hierarchical & Relational Model)			
3 rd	9	Schemas and Instances , Database language			
	10	DBMS architecture, Three levels architecture of Database Systems			
	11	Various views of data and data Independence			
	12	ER Model, Entity Types, Attributes and Keys			
4 th	13	Relationships , Roles and Structural Constraints			
	14	ER Diagram and Examples			
	15	Reduction of E-R diagram into tables			
	16	Relational Model			
5 th	17	Relational Algebra & various operations			
	18	Relational Algebra & various operations			
	19	Relational and Tuple calculus			
	20	Relational and Tuple calculus			
6 th	21	Network, Hierarchical & Relational Model			
	22	Problems on Relational Algebra			
	23	Problems on Relational calculus			
	24	Problems on Design of ER models			
7 th		1st Minor Test			
8 th	25	Introduction to Query Languages (SQL)			
	26	Data Definition and Constraints			
	27	Insertion in SQL			
	28	Deletion and Update in SQL			
9 th	29	Queries in SQL			
	30	Relational Database Design			
	31	Functional dependencies : Full, Partial, Transitive			
	32	Introduction to Normalisation (Decomposition and Integrity Constraints)			
10 th	33	First and second Normal forms			
	34	Third Normal forms and BCNF			
	35	Fourth Normal forms			
	36	Problems on Normalisation			
11 th	37	Introduction to Concurrency control techniques			
	38	ACID Properties of a transaction			
	39	Locking Techniques			
	40	Problem Solution on Locking Techniques			
12 th	41	Time Stamp Ordering			
	42	Multi Version Techniques			
	43	Deadlock and Necessary Conditions			
	44	Problems and Solutions			
13 th	45	Introduction to Recovery systems and Techniques			
	46	Recovery Techniques in Centralized DBMS			
	47	Recovery Techniques in Centralized DBMS			
	48	Problem Solution			
14 th		2nd Minor Test			
15 th	49	DDBMS Design			
	50	Replication and Techniques			
	51	Replication Techniques			
	52	Problem Solution on Replication Techniques			

Lesson Plan

Semester : 4th
Subject : Database Management System lab(PCC-CSE-207-P)
Work Load (Lecture/Practical) per week (in hours): Practical-02 hours

Week	Theory/ Practical (Group-I/ II)		Topic Covered Date and Remarks		
	Practical Day	Topics/ Programs	Date	HOD	Director-Principal
1 st	1	Create a database			
2 nd	2	Alter the structure of an existing database			
3 rd	3	Add a record in database			
4 th	4	Delete a record from database			
5 th	5	Modify a record in database			
6 th	6	Generate queries			
7 th		1 st Minor test			
8 th	7	Generate a report			
9 th	8	List all records in database in ascending order			
10 th	9	List all records in database in descending order			
11 th	10	Execute various set of operations such as union, subtraction			
12 th	11	Execute various set of operations such as intersection			
13 th	12	Execute of aggregate functions as sum, count, avg, max, min etc			
14 th		2 nd Minor test			
15 th	13	Implement various outer join operations			