

Lesson Plan (DBMS)

Name of the Faculty: Monika Rohilla
Discipline: Computer Engg.
Semester: 3rd
Subject: DBMS
Lesson Plan Duration: (From 4 Aug 2025 to
26November2025) Lecture- 02, Practical-04

Week	Theory		Practical	
	Lecture Day	Topic(including assignment/Test)	Practical Day	Topic
1st	1	Database system :Introduction to database and its purpose Characteristics of database, approach, advantage and disadvantage of database system	1 st	Exercise on creation and modification of structure of tables
	2	Classification of DBMS users: Actors on the scene-Database Administrators, Database designers, End users–System Analyst and Application Programmers	2nd	Exercise on creation and modification of structure of tables
2nd	3	Workers behind the scene(DBMS system designers and implementers, tools developers, operator and Maintenance personnel	3rd	Revision of Exercise on creation and modification of structure of tables
	4	Data Models, Schemas ,Instances, Database state, DBMS Architecture: External level, Conceptual level, Internal level, Mappings Data Independence :Logical data independence and physical data independence	4th	Revision of Exercise on creation and modification of structure of tables
3rd	5	Database Languages, DBMS interfaces, Classification of DBMS-Centralized ,Distributed, Parallel and Object Based	5th	Exercise on inserting and deleting values from tables
	6	Data modeling using E-R Model Data Model Classification: File Based or primitive models, Traditional data Models, Semantic Data Models	6th	Exercise on inserting and deleting values from tables
4th	7	Entities and Attributes ,Entity Types and Entity Sets, Key Attribute and domain of attributes	7th	Revision of exercise on inserting and deleting values from tables

	8	Relationship among entities , database design with ER model Revision of 1 st ,2 nd and 3 rd unit	8th	Revision of exercise on inserting and deleting values from tables
5th	9	Relational model Concepts: Domain, Tuple, Attribute, Cardinality, Relation	9th	Exercise on Querying the table using Select Command
	10	Keys- Primary, Secondary, Foreign, Alternate. Relational Constraints and Relational Database schemes Domain Constraints ,key Constraints and Constraints on Null	10th	Exercise on Querying the table using Select Command
6th	11	Relational Databases and Relational Database Schemes	11th	Revision of Exercise on Querying the table using Select Command
	12	Entity Integrity, Referential Integrity and Foreign Key Comparison between ER Model and Relational Model	12 th	Revision of Exercise on Querying the table using Select Command
7th	13	Trivial and NonTrivial Dependencies	13th	Exercise on using various types of joins
	14	Non Loss Decomposition and Functional Dependencies First and 2 nd normal forms	14th	Exercise on using various types of joins
8th	15	Third normal form, BCNF, Denormalization	15th	Revision of Exercise on using various types of joins
	16	Revision of unit 4,5	16th	Revision of Exercise on using various types of joins
9th	17	Creating and using indexes, Creating and using views	17th	Exercise on using functions provided by database package
	18	Database security, Process controls Database protection, grant and Revoke	18th	Exercise on using functions provided by database package
10th	19	DDL: Creating tables, Creating a table with data from another table	19th	Revision of Exercise on using functions provided by database package
	20	Inserting values into a table, Updating columns of a table Deleting Rows, Dropping a table	20th	Revision of Exercise on using functions provided by database package
11th	21	DML, Database Security and privileges, Grant and Revoke command	21st	Exercise on Grant, Revoke, Commit and Rollback

	22	Maintaining Database objects, commit and Rollback Various types of select commands	22nd	Exercise on Grant, Revoke, Commit and Rollback
12th	23	Various types of joins, sub query	23rd	Revision of Exercise on Grant, Revoke, Commit and Rollback
	24	Aggregate functions, Challenges of My Sql Introduction to Big Data	24th	Revision of Exercise on Grant ,Revoke, Commit and Rollback
13th	25	Understanding Big data with samples	25th	Design of Database for any application
	26	RevisionofUnit1,2	26th	Design of Database for any application
14th	27	RevisionofUnit3	27th	Viva of practical no.1to3
	28	Revision of Unit4,5	28 th	Viva of practical no.1to3
15th	29	Revision ofUnit6	29th	Viva of practical no.4to7
	30	Revision ofUnit7 Pre Exam Conduct	30 th	Viva of practical no.4to7

Government Polytechnic, Narnaul

Lesson Plan (Odd Semester)

Name of the Faculty : Anil Parkash
Discipline : Computer Engineering
Department : Computer Engineering
Semester : 3rd
Subject : Programming in C
Lesson Plan Duration : from 04-08-2025-17-11-2025 16 weeks

Work load (Lecture / Practical) per week(in hours): Lectures - 03, Practicals - 06

	Theory		Practical	
Week	Lecture day	Topic (Including assignment / test)	Practical Day	Topic
1 st	1	Steps in development of a program	1 st	Programming exercises on executing and editing a C program.
	2	Flow charts,		
	3	Algorithm development		
2 nd	4	Programme Debugging	2 nd	Programming exercises on defining variables and assigning values to variables
	5	I/O statements		
	6	Constants, variables		
3 rd	7	assign statements	3 rd	Programming exercises on arithmetic and relational operators
	8	data types		
	9	Operators and Expression		
4 th	10	Operators and Expression	4 th	Programming exercises on arithmetic expressions and their evaluation.
	11	Unformatted and Formatted IOS		
	12	Data Type Casting	5 th	Programming exercises on formatting input/output using printf and scanf and their return type values
5 th	13	Introduction to Control Structures	6 th	Programming exercises using if statement.
	14	Decision making with IF – statement		
	15	IF – Else	7 th	Programming exercises using if – Else.
6 th	16	Nested IF	8 th	Programming exercises on do – while, statement. Programming exercises on for – statement.
	17	While and do-while,		
	18	for loop		
7 th	19	Break. Continue, goto	9 th	Programming exercises on switch statement.
	20	switch statements		

	21	Introduction to pointers	10 th	Simple programs using pointers.
8 th	22	Address operator and pointers		
	23	Declaring pointers		
	24	Initializing Pointers		
9 th	25	Single pointer,	11 th	Simple programs using functions
	26	Introduction to functions		
10 th	27	Global and Local Variables		
	28	Function Declaration		
	29	Standard functions		
11 th	30	Parameters and Parameter Passing		
	31	Call - by value/reference		
12 th	32	Introduction to Arrays		
	33	Array Declaration, Length of array		
13 th	34	Single Array.	13 th	Programs on two-dimensional array.
	35	Multidimensional Array		
	36	Arrays of characters		
14 th	37	Introduction of Strings	14 th	Programs for putting two strings together.
	38	String declaration and definition		
	39	String Related function i.e. strlen, strcpy		
15 th	40	String Related function i.e. strcmp	15 th	Programs for comparing two strings.
	41	Passing an array to function		
	42	Pointers to an array and strings.		
16 th	43	Pointers to an strings.	16 th	Simple programs using structures Simple programs using union.
	44	Declaration of structures		
	45	Accessing structure members		
17 th	46	Structure Initialization	17 th	
	47	Pointer to a structures,		
	48	Unions		