

**PANIPAT INSTITUTE OF ENGINEERING AND TECHNOLOGY PANIPAT
DEPARTMENT OF INFORMATION TECHNOLOGY**

Lab Plan

Subject: Database Management System Lab

Subject code:PC-IT-216LA

Session: 2022-23

Semester: IV

CO	CO Description
CO1	Implement basic DDL, DCL and DML commands.
CO2	Apply relational algebra on given problem statements.
CO3	Write effective SQL queries.
CO4	Develop a small project using the concepts learnt in DBMS.

LIST OF EXPERIMENTS

S.No.	Topic	CO Covered
1	Create a database and write the programs to carry out the following operation: <ul style="list-style-type: none"> • Add , Delete and modify a record in the database • Generate queries • Data operations • List all the records of database in ascending order. 	CO1
2.	Write relational algebra queries using various operators such as select, project, union, intersection, minus, division.	CO2
3.	Create a database and perform the following operations:- <ul style="list-style-type: none"> • Arithmetic and Relational operations • Group by & having clauses • Like predicate for pattern matching in database 	CO3
4.	To perform various integrity constraints on relational database.	CO3
5.	Create a view to display details of employees working on more than one project.	CO3
6.	Using two tables create a view which shall perform natural join, equi join, outer joins.	CO3
7.	Write a procedure to give incentive to employees working on all projects. If no such employee found give app. Message.	CO3
8.	Write a procedure for computing amount telephone bill on the basic of following conditions. <ol style="list-style-type: none"> 1. telephone rent Rs. 205 including first 105 free units. 2. if extra units>0 but <500 then rate is 80 paise per unit. 3. if extra units>500 then rate is Rs. 1.20 per unit. For this purpose create a table with name, Phone No., No. of units	CO3

	consumed, bill amount of a customer.	
9.	<p>Write a procedure for computing income tax of employee on the basis of following conditions:-</p> <ol style="list-style-type: none"> 1. if gross pay $\leq 40,000$ then I.T rate is 0%. 2. if gross pay $> 40,000$ but $< 60,000$ then I.T rate is 10%. 3. if gross pay $> 60,000$ but $< 1,00,000$ then I.T rate is 20%. 4. if gross pay $> 1,00,000$ then I.T rate is 30%. <p>For this purpose create a table with name, ssn, gross salary and income tax of the employee.</p>	CO3
10.	Make project using MySql as backend.	CO4