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Kharghar, Navi Mumbai - 410 210.

# COMPUTER ENGINEERING DEPARTMENT

**Vision:** "To contribute to society through excellence in scientific & knowledgeable based education of computer science professional".

## Mission:

- To transform students into technically components, socially responsible & ethical computer science professionals
- To promote a creative teaching-learning process that will strive for academic excellence in the field of computer engineering.
- To enhance the technical expertise of students through workshop & industry-institute interaction

**Subject Name:- Database Management System (313302)** 

Date :-12/08/2024

Assignment No :-II

### **Course Outcome:**

CO1 - Explain concept of database management system.

CO2 - Design the database for a given problem.

CO3 - Manage database using SQL.

Unit 1:-Introduction to Database concept(12M) & Unit 2:-Relational data Model & Unit 3:-Interactive SQL and Performance Tuning

### **2M Questios**

- a) Define data and database.
- b) Enlist all DDL, DML,TCL,DCL commands.
- c) Write difference between DROP and TRUNCATE command.
- d) Explain strong & weak entity with ex.
- e) List two advantages of DBMS over file system & List two application of DBMS
- f) Write syntax for UPDATE, DELETE, ALTER command with example.
- g) Write any two rules by E.F.Codd.
- h) Define i) Primary Key ii)Foreign key iii)Super Key iv)Candidate key with ex? C301.2
- i) Define Normalization. Enlist its types.

#### **4M Questions**

- a) Draw ER diagram for employee management system and explain relationship between entities and labeled attributes properly.
- b) Create table(book\_id primary key,book\_name unique,author not null,no\_of\_copies not null,price check)

Write down the SQL queries for following

- i) Write a command to create book table.
- ii) Display all records who price between 700 and 900.
- iii)Display all book who's price is equals to 400.
- iv) Insert 2 values into book table.
- v) Update the book record whose price is 100 update it to 400.
- c) Describe data abstraction in detail with dig?
- d) Create table employee(emp\_id primary key,emp\_name not null,emp\_age check,salary check)
  - i) Display details of employee whose age is less than 40.
  - ii) Display details of employee whose age is in between 20 and 30.
  - iii) Display details of employee whose name ends with A.
  - iv) Display details of employee whose age is greater than 20 and its name contain e.?
- e)Define E-R diagram and draw and explain each component of E-R diagram?
- f) Explain 2-tier & 3 tier architecture in DBMS with dig.
- g) Create Emp and Dept table with following schema. Schema: Emp(Emp\_no as primary key, Ename, salary, phno); Dept(deptno primary key, empno foreign key, deptname. location):
  - i) Delete the employee record who's emp\_no is 3?
  - ii) Display department whos location is mumbai?
  - iii) Display Department whos location is pune and deptname is HR?
  - iv) Find out the employee whose second last letter is N?
- h) Explain all DML commands with syntax and ex of each.

I Explain all comparision operator with ex?

Name of course coordinator: - Miss. Komal A Jadhav. Last date of Submission:- 22/08/2024