22319

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Assume suitable data, if necessary.

(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. **Attempt any <u>FIVE</u> of the following:**   **10**

a) Define Normalization. List its types.

b) List disadvantages of typical file processing system.

c) List system privilages and object privilages.

d) State the causes of database failure.

e) Define :

    i)   Data Abstraction

    ii)   Data Redundancy

f) List date and time functions.

g) Define :

    i)   Instance

    ii)   Schema

Marks

2. **Attempt any THREE of the following:** **12**

a) Explain set operators with example.

b) Differentiate between network model and hierarchical model.

c) Write query using group by and having clause. (use students database)

d) Write PL/SQL code to print largest number from three numbers (Accept 3 numbers from user)

3. **Attempt any THREE of the following:** **12**

a) Write and explain syntax for creating and dropping synonyms with example.

b) State and explain 1NF and 2NF with example.

c) Explain overall structure of DBMS with the help of diagram.

d) Write PL/SQL program to print number of employee working in specified department consider emp table and accept dept-no. from user.

4. **Attempt any THREE of the following:** **12**

a) Write and explain syntax to create, open and close cursor in PL/SQL.

b) Differentiate between delete and truncate command with example.

c) Explain any four joins if SQL with examples.

d) Draw ER diagram for hospital management system.

e) Explain database recovery techniques with example.

5. **Attempt any TWO of the following:** **12**

a) i) Write a query to create table emp-details (Emp_ID, name, dept) with proper data types and Emp_ID as primary key and name as NOT NULL constrain.

ii) Perform all DML command on above created table.

b) Create simple and composite index. Write command to drop index.

c) Differentiate between PL/SQL procedure and function with syntax and example.

Marks

6. Attempt any TWO of the following: **12**

a) Explain use of database trigger. List types of trigger. Write command to create and delete trigger.

b) Consider following schema :

Book-master (bookid, bookname, author, no_of_copies, price) write down SQL queries for following :

i) Write a command to create Book_master table.

ii) Increase the price of all books by 20%.

iii) Display all books whose price ranges from ₹500 to ₹800.

iv) Display all books with details whose name start with 'D'.

v) Display all books whose number of copies are less than 10.

vi) Display all books whose price is above ₹700.

c) Write SQL command for following :

i) Create user

ii) Grant privileges to user

iii) Remove privileges from user.

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