SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN (AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.
B.Sc. END SEMESTER EXAMINATIONS NOVEMBER-2022
SEMESTER - V
20UCSCT5007 - Relational Database Management Systems

Total Duration : 2 Hrs 30 Mins. **Total Marks : 60**

Section A

Answer any **SIX** questions $(6 \times 5 = 30$ Marks)

1. Sketch and describe the structure of RDBMS.
2. Given the following schema:
   CUSTOMER(cust_no, sales_person_name, customer_city, year_of_hire).
   Write an SQL query to
   (i) Create a table and display the list of all customers by cust_no with the city in each is located.
   (ii) List the name of sales person who got hired after 2017.
3. What is Trigger? How do you apply different types of triggers in a Real time application?
4. Illustrate different types of normal forms.
5. Explain DDL commands.
6. Create the tables for the following relations - (Customer with cust_id, cust_name, city, grade, salesman_id) (Salesman with attributes salesman_id, name, city, commission)
   (Orders with ord-no,purch_amt,ord_date,customer_id,salesman_id)
   i) Write a SQL query to find the salesperson(s) and the customer(s) he handled. Return customer - Name, city, Salesman – name,commission. (Inner Join).
   ii).Write a SQL query to find those customers whose grade is less than 300. Return cust name, customer city, grade, salesman - city. The result should be ordered by ascending customer_id (left - outer join)
7. Illustrate the structure of PL/SQL program.
8. Is exception handling is important inside the PL/SQL block? Justify Your answer.

Contd...

Section B

Answer any **THREE** questions $(3 \times 10 = 30$ Marks)

9. Suppose you are given the following requirements for a simple database for the National Hockey League NHL:
   - The NHL has many teams,
   - Each team has a name, a city, a coach, a captain and a set of players
   - Each player belongs to only one team
   - Each player has a name, a position (such as left wing or goalie), a skill level and a set of injury records
   - A team captain is also a player
   - game is played between two teams (referred to as host_team and guest_team) and has a date (such as May 11th, 1999) and a score (such as 4 to 2).

   Construct a clean and concise ER diagram for the NHL database

10. Consider a following relation – Person with attributes eno, name, dob, sex, doj, basicpay, dept. Do the following:
    i)Create the table with the attributes and apply necessary constraints
    ii) Select the Employees who are all belongs to 'CSE' department and salary between Rs.15000 - Rs.100000
    iii) Display total number of employees in each department

11. Recommend a SQL query.
    i)to create table for the relation :
    Stud with attributes - Regno, Sname, Course, Jdate, Grade, Address, Mob_no
    ii) insert two rows in table
    iii)delete one row from table
    iv)update grade
    v)view whole table.

12. Classify the data types in SQL.

13. Distinguish between Procedures and Triggers.

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