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.(DS) END SEMESTER EXAMINATIONS NOVEMBER -2023
SEMESTER - III
22UDSCT3003 - Relational Database Management Systems

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

Section B

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

1. Explain about different types of constraints.
2. Describe functional dependency with an example.
3. Design an SQL query to find the highest salary among employees in each department using the MAX() function and GROUP BY.
4. Create a trigger named "update_stock" that automatically decreases the quantity of an item in the "stock-in-hand" table by 1 whenever a new order is inserted into the "orders" table.
5. Discuss in detail about keys in relational model.
6. Explain the concept of authentication and authorization in the context of database security.
7. Explain Pros & Cons of Relational Algebra Operations.
8. Give a short note on exceptional handling.

Section C

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

9. Design an ER diagram for a college database system that includes entities like students,courses and instructors. Indicate relationships and cardinalities.
10. Explain in detail about codd's rule.
11. Explain various Normalization with example.
12. Describe the concept of correlated subqueries. Provide an example of how a correlated subquery can be used to retrieve data from related tables.
13. Write a PL/SQL block that calculates the total cost of all orders placed by a specific customer. Use a cursor to fetch the order details.

*****

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.(DS) END SEMESTER EXAMINATIONS NOVEMBER -2023
SEMESTER - III
22UDSCT3003 - Relational Database Management Systems

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

Section B

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

1. Explain about different types of constraints.
2. Describe functional dependency with an example.
3. Design an SQL query to find the highest salary among employees in each department using the MAX() function and GROUP BY.
4. Create a trigger named "update_stock" that automatically decreases the quantity of an item in the "stock-in-hand" table by 1 whenever a new order is inserted into the "orders" table.
5. Discuss in detail about keys in relational model.
6. Explain the concept of authentication and authorization in the context of database security.
7. Explain Pros & Cons of Relational Algebra Operations.
8. Give a short note on exceptional handling.

Section C

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

9. Design an ER diagram for a college database system that includes entities like students,courses and instructors. Indicate relationships and cardinalities.
10. Explain in detail about codd's rule.
11. Explain various Normalization with example.
12. Describe the concept of correlated subqueries. Provide an example of how a correlated subquery can be used to retrieve data from related tables.
13. Write a PL/SQL block that calculates the total cost of all orders placed by a specific customer. Use a cursor to fetch the order details.

*****