

22319

11920

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- (a) State any two advantages of DBMS over file processing system.
- (b) Draw three level architecture of DBMS.
- (c) Define table and field.
- (d) Enlist DML commands.
- (e) Define primary key and foreign key.
- (f) List any four string functions in SQL.
- (g) State any two advantages of functions in PL/SQL.

2. Attempt any THREE of the following :

12

- (a) Distinguish between Network and Hierarchical model. (Any four points)
- (b) Explain any four set operators in SQL with example.
- (c) Describe Views and write a command to create view.
- (d) Explain implicit and explicit cursors.

- 3. Attempt any THREE of the following : 12**
- (a) State and explain 3NF with example.
 - (b) Define index. Explain it's types.
 - (c) Explain Exception handling with it's types.
 - (d) Explain ACID properties of transaction.
- 4. Attempt any THREE of the following : 12**
- (a) Explain strong and weak entity set.
 - (b) Describe create & alter command with syntax & example.
 - (c) Define database trigger. How to create and delete trigger ?
 - (d) Explain any one control structure in PL/SQL with example.
 - (e) Describe database backups with it's types.
- 5. Attempt any TWO of the following : 12**
- (a) Draw an ER diagram for library management system. (Use Books, Publisher & Member entities).
 - (b) Write a command to create table student (rollno, Stud_name, branch, class, DOB, City, Contact_no) and write down queries for following :
 - (i) Insert one row into the table
 - (ii) Save the data
 - (iii) Insert second row into the table
 - (iv) Undo the insertion of second row
 - (v) Create save point S₁.
 - (vi) Insert one row into the table.

(c) Consider following schema :

EMP (empno, deptno, ename, salary, designation, join_date, DOB, dept_location). Write down SQL queries for following :

- (i) Display employees name & number in decreasing order of salary.
- (ii) Display employee name & employee number whose designation is Manager.
- (iii) Display age of employees with ename.
- (iv) Display total salary of all employees.
- (v) Display employee names having deptno as 20 and dept_location is Mumbai.
- (vi) Display name of employee who earned lowest salary.

6. Attempt any TWO of the following :

12

(a) Consider the structure for book table as 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) Get authorwise list of all books.
 - (iii) Display all books whose price is between ₹ 500 & ₹ 800.
 - (iv) Display all books with details whose name start with 'D'.
 - (v) Display all books whose price is above ₹ 700.
 - (vi) Display all books whose number of copies are less than 10.
- (b) Write a PL/SQL program to print n even numbers using For Loop.
- (c) Describe database privileges. Write down the procedure for granting & revoking privileges in database objects to the users.
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