

22319

24225

3 Hours / 70 Marks

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answer 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 FIVE of the following:** **10**
- a) List any two DCL commands with syntax.
 - b) Define data model. List its types.
 - c) Enlist any two Applications of DBMS.
 - d) State the components used in E-R diagram.
 - e) Enlist types of SQL Joins.
 - f) List any four string functions in SQL.
 - g) List any two E.F. Codd's Rule for RDBMS.

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- 2. Attempt any THREE of the following:** **12**
- a) Explain any two types of Data Integrity Constraints.
 - b) State the use of group by and order by clauses.
 - c) Explain ACID properties of transaction.
 - d) Describe Views and write a command to create view.
- 3. Attempt any THREE of the following:** **12**
- a) Draw the block structure of PL/SQL. List advantages of PL/SQL.
 - b) Explain any four aggregate functions with example.
 - c) Explain recovery techniques with example.
 - d) Define database trigger. How to create and delete trigger?
- 4. Attempt any THREE of the following:** **12**
- a) Explain advantages of DBMS over file processing system.
 - b) Explain implicit and explicit cursors.
 - c) Explain Primary and Unique key constraint with syntax.
 - d) Write a PL/SQL code to print number from 1 to 10.
 - e) Explain the syntax for creating and dropping indexes with an example.
- 5. Attempt any TWO of the following:** **12**
- a) Draw ER diagram of hospital management system considering patient admission, discharge, billing, also show primary key, weak entity and strong entity.
 - b) Write SQL query for the following consider table.
Emp(emp_id, dept, emp_name, salary, designation, joining_date, DOB, city)
 - i) List employees with having alphabate 'P' as first letter in their name.
 - ii) Set salary of all 'project leaders' to 90,000.
 - iii) Display average salary of all employees.

- iv) Display employee-Id of employees who live in city 'Chandwad' or 'Nashik'.
 - v) Display employee name, salary and city from 'HR' department who having salary greater than 70,000.
 - vi) Display details of all employee whose salary same as that of salary of 'Surya Sali'.
- c) State and explain 1 NF and 2 NF with example.

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) Display list of all books.
 - iii) Display all books whose price is between 500 and 700.
 - iv) Display all books with details whose name start with 'N'.
 - v) Display all books whose price is above 500.
 - vi) Display all books whose numbers of copies are less than 25.
- b) Write a PL/SQL program to calculate factorial of a given number.
- c) Write SQL command for following :-
- i) Create user
 - ii) Grant privileges to user
 - iii) Remove privileges from user.
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