

22319

23124

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) Enlist any two Applications of DBMS.
 - b) Define the following :
 - i) Instance
 - ii) Schema
 - c) List DML commands with its syntax. (Any Four)
 - d) List any four string functions in SQL.
 - e) Enlist types of SQL Joins.
 - f) Define cursor. Enlist the types of cursors.
 - g) Define failure. Enlist types of failure.

P.T.O.

- 2. Attempt any THREE of the following :** **12**
- a) State advantages of DBMS over file processing system.
(Any four)
 - b) Explain pattern matching operators 'Like' and range searching operator 'Between' with example.
 - c) Explain any four aggregate functions with example.
 - d) Describe exception handling in PL/SQL.
- 3. Attempt any THREE of the following :** **12**
- a) Explain commit and rollback with syntax and example.
 - b) Write and explain create, update and drop view commands.
 - c) Explain procedures in PL/SQL with example.
 - d) Describe ACID properties of transaction.
- 4. Attempt any THREE of the following :** **12**
- a) Differentiate between network model and hierarchical model.
(Any four points)
 - b) Define Normalization. State and explain 2NF with example.
 - c) Explain cursor with syntax for declaring, opening and closing a cursor.
 - d) Describe sequences in PL/SQL with example.
 - e) Compare database triggers and procedures. (Write four differences)
And explain the use of database trigger.

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

- a) Draw ER diagram for Hospital management system.
(Use Entity-Doctor, Patient, Hospital and Medical Record).
Show Primary Key, and Foreign Key.
- 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 'A' as second letter in their name.
 - ii) Set salary of all 'project leaders' to 50,000.
 - iii) Display average salary of all employees.
 - iv) Display employee-Id of employees who live in city 'Pune' or 'Nagpur'.
 - v) Display employee name, salary and city from 'HR' department who having salary greater than 70,000.
 - vi) Display details of all employee who's salary same as that of salary of 'Shashank'.
- c) Consider schema of book table as Book_Master
(book_id, book_name, author, no_of_copies, price)
Write down the SQL queries for the following.
 - i) Write a query to create table Book_Master table.
 - ii) Write a command to create composite index on Book_Master table.
 - iii) Write a command to drop above index.
 - iv) Display book name and author in decreasing order of price.
 - v) Display all books whose number of copies are greater than 50.
 - vi) Create synonym for relation Book_Master as Book_Information.

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

- a) Write a PL/SQL program to print sum of n odd numbers using for loop.
 - b) Write a command to create table Customer (Custo_id, Cust_name, address, Contact_no, City). And write down the queries for the following:
 - i) Insert one row into table.
 - ii) Save the data.
 - iii) Insert Second row into the table.
 - iv) Create save point S1.
 - v) Insert one row into the table.
 - c) Describe database privileges. Write down the command for granting and revoking privileges on database object to users.
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