

22416

21819

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 answers 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**
- Enlist any four relational algebra operators.
 - State the use of 'Between' clause (any two user)
 - Compare 'GROUP BY' and 'HAVING' clause. (any two difference)
 - State any two advantages of PL/SQL.
 - List any four statements of PL/SQL.
 - Define the term 'cursor'
 - Enlist the types of database users.

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- 2. Attempt any THREE of the following: 12**
- a) Describe simple and composite attribute with suitable example.
 - b) Define the index with its characteristics.
 - c) Differentiate between PL/SQL function and procedure. (any four differences)
 - d) Describe database security with its requirements.
- 3. Attempt any THREE of the following: 12**
- a) Give any four string functions with example.
 - b) Create synonyms for 'class' tables. Write steps to create synonyms.
 - c) Write a PL/SQL program to display 10 reverse numbers. Use 'for' loop.
 - d) Describe GRANT and Revoke with its syntax and example.
- 4. Attempt any THREE of the following: 12**
- a) Consider following schema:
Depositor (cust_name, acc_no)
Borrower (cust_name, loan_no)
Solve following queries:
 - (i) Find customer name having saving account as well as loan account.
 - (ii) Find customer names having loan account but not the savings account.
 - b) Create sequence for department table and also altered the created sequence.
 - c) List the types of trigger. Write the steps to create trigger with example.
 - d) Describe ACID properties of Transaction.
 - e) Define database backup. Describe how database backup helps to avoid failures.

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

- a)
 - (i) Create the table as named 'student' with field as roll no, name, address, DOB and percent.
 - (ii) Add a column 'city' to student table.
 - (iii) Change the name of 'student' table to; 'student_info'.
 - (iv) Remove/ delete the data or records from student info table.
- b) Describe Commit, Rollback and save point with example.
- c) Give syntax for creating a view. Consider following schema- ACCOUNT (Account_No, Name, Account_Type, PAN_Number, Balance). Create a view on ACCOUNT having attributes (Account_No, Name, PAN_Number) where balance is less than 10,000.

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

- a) Consider the following data base scheme student (roll_no, name, city, marks, result). Write queries for the following:
 - (i) Display all students having result as first class.
 - (ii) Update roll-no of each student by adding 18 to it.
 - (iii) Delete percent column from table.
 - (iv) Display student whose city is 'Mumbai'
 - b) Describe different types of Indexes with examples.
 - c) With suitable example write steps to create triggers and drop a trigger..
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