

313302

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

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| 1. Attempt any <u>FIVE</u> of the following: | 10 |
| <p>a) Define terms –</p> <ul style="list-style-type: none">i) Data abstractionii) DBMS <p>b) Enlist any four symbols used in ER diagram.</p> <p>c) Write any two DDL commands with syntax.</p> <p>d) Enlist any four string functions in SQL.</p> <p>e) List the type of exception in PL/SQL.</p> <p>f) State any two advantages of PL/SQL.</p> <p>g) List characteristics of big data.</p> | |

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- 2. Attempt any THREE of the following:** **12**
- a) Explain any four rules of EF codd.
 - b) Define Normalization and explain 2 NF with example.
 - c) Write PL/SQL program to find largest of three number.
 - d) Consider table student (name, marks, dept, age, place, phone)
write SQL query for following:
 - i) Display students name, dept. and place who are staying in 'Pune' or 'Jalgaon'.
 - ii) Change marks of Rahul from 96 to 88.
 - iii) List student name and marks of 'IT' department.
 - iv) List student name having same department as that of 'Jyoti'.
- 3. Attempt any THREE of the following:** **12**
- a) Distinguish between Network and Hierarchical model. (Any four points)
 - b) Explain any four aggregate function with example.
 - c) Define cursor. Write step by step syntax to declare open, fetch and close cursor in PL/SQL.
 - d) Differentiate between physical backup and logical backup.
- 4. Attempt any THREE of the following:** **12**
- a) Explain two tier and three tier client server architecture.
 - b) List and explain any four advantages of DBMS over file processing system.
 - c) Explain set operators with suitable examples.
 - d) Explain trigger with suitable example.
 - e) Write a PL/SQL program to print odd numbers in 1 to 10.

5. Attempt any TWO of the following: 12

- a) With neat ER diagram explain strong and weak entity set.
- b) Write SQL command for following schema student (rollno, fname, Lname, Loc, dob):
 - i) Create view named VI that includes the columns, rollno, fname)
 - ii) Remove the view named VI
 - iii) Create composite index using attribute rollno and Lname.
 - iv) Create a sequence for student table.
- c) Write a PL/SQL program to find sum all numbers from 1 to 10.

6. Attempt any TWO of the following: 12

- a) Create table employee (empid, ename, phone, dob, city, salary, deptno.) with following constraints.
 - i) Set empid as primary key
 - ii) Ensure phno values are unique
 - iii) deptno can not be left empty
 - iv) Salary is above 1000
 - v) deptno is foreign key
 - vi) assign a default value to city as Pune.
 - b) Draw an E-R diagram for college management system with atleast three entities and two relationship including composite attribute, multivalued attribute and derived attribute.
 - c) Write SQL queries for following –
 - i) Create user named user1 having password 'Pass@123'.
 - ii) Assign insert and update privilege to user1.
 - iii) Remove update privilege assigned to user1.
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