

17332

11819

3 Hours / 100 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.

Marks

1. (A) Attempt any SIX of the following : 12
- (a) List the application of database management system.
 - (b) Write advantages of network model.
 - (c) Explain foreign key constraint.
 - (d) What are different data types of SQL.
 - (e) What is serializability ?
 - (f) What is view ?
 - (g) Define following with respect to PL/SQL.
 - (i) Function
 - (ii) Procedure
 - (h) Define the terms :
 - (i) Candidate key
 - (ii) Primary key

(B) Attempt any TWO of the following :

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- (a) Explain 3 levels of data abstraction with suitable diagram.
- (b) Describe the command to change the data in the table with example.
- (c) Compare database triggers and procedures.

2. Attempt any FOUR of the following :

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- (a) Explain network model with suitable diagram.
- (b) Compare BCNF and 3NF with suitable example.
- (c) Consider the structure of stud record (Name, Mark, Age, Place, Phone, Birth_date)

Write SQL queries for following :

- (i) To list the name of student who do not have phone no.
 - (ii) To list the students from Nashik & Pune.
 - (iii) To change mark of Monika to 88 instead of 80
 - (iv) To list the student's from Amit's age group
- (d) Write command & its syntax for
- (i) creating snapshot
 - (ii) to view the record from snapshot
 - (iii) altering snapshot
 - (iv) dropping snapshot
- (e) Describe Grant and Revoke Commands.
- (f) Explain overall structure of DBMS.

3. Attempt any FOUR of the following :**16**

- (a) What are different alter commands in SQL ? Explain with example.
- (b) Explain looping in PL/SQL.
- (c) Describe ACID properties of transaction.
- (d) How to create views ? Explain any two options of views.
- (e) Draw & explain the block structure of PL/SQL.
- (f) Explain two tier and three tier client server architecture.

4. Attempt any FOUR of the following :**16**

- (a) Explain the term Specialization and Generalization with suitable example.
- (b) Write a PL/SQL program to print numbers 1 to 7 using for loop.
- (c) Explain the use of truncate statement and rename statement. Give example.
- (d) List & explain set operators in SQL.
- (e) Draw an E-R diagram for Hospital Management System.
- (f) Explain types of database users.

5. Attempt any FOUR of the following :**16**

- (a) List & explain the function of DBA.
- (b) What is sequence ? Explain with syntax and example.

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- (c) Explain with suitable example various types of triggers.
- (d) What is cursor ? Explain any two types of cursor.
- (e) What is relational algebra ? Explain select & project operations.
- (f) What is use of group by clause ? Explain with an example.

6. Attempt any FOUR of the following :

16

- (a) What is data independence ? What are its types ?
 - (b) Explain the need of normalization by example.
 - (c) Draw & explain State diagram of transaction.
 - (d) Explain tuple relational calculus with example.
 - (e) Compare functional dependency & multivalued dependency.
 - (f) Explain any four aggregate functions with example.
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