

17332

16172

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.
 - (4) Assume suitable data, if necessary.

Marks

1. (A) Attempt any SIX of the following : 12
- (a) Define Database. List any two properties of database.
 - (b) Define super key.
 - (c) List the notation used in relational algebra.
 - (d) Define Group by clause.
 - (e) What is SQL ? State its features.
 - (f) Define index.
 - (g) Define cursor.
 - (h) List advantages of Normalization
- (B) Attempt any TWO of the following : 08
- (a) Describe the advantages of Distributed Database Management System.
 - (b) What is OUTER JOIN ? Explain in detail.
 - (c) Describe Exception handling. Explain with example.

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

- (a) Explain referential integrity constraints with example.
- (b) Explain single value and multivalued attribute of E-R model.
- (c) Explain string, data and time functions of SQL
- (d) With the help of example, explain DROP VIEW command.
- (e) Write a PL/SQL program to print numbers from 50 to 60 using for loop.
- (f) List and explain types of DBMS users.

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

- (a) Explain having clause with example.
- (b) Explain implicit and explicit cursor.
- (c) Explain strong and weak entity set with example.
- (d) Differentiate between view and index.
- (e) Explain the concept of trigger.
- (f) Describe function of database administrator.

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

- (a) Draw E-R diagram for customer and loan. Assume suitable attribute.
- (b) Define following term with example
 - (i) Procedure
 - (ii) Function
- (c) Describe commit and rollback with proper syntax.
- (d) Consider the structure for book table as Book – master = {bookid, bookname, subcode-author, no_of copies, price} Write SQL queries for following :
 - (i) Display total no. of books for subject 'DBM'.
 - (ii) Get authorwise list of all books.
 - (iii) Display all books whose prices are between Rs. 200 and Rs. 500
 - (iv) Display all books with details whose name start with 'S'
- (e) Describe unique index and composite index with example.
- (f) List out query processing components and state their function.

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

- (a) Explain three tier architecture.
- (b) Explain snapshot with example.
- (c) Explain GOTO statement with example.
- (d) Explain PL/SQL block structure.
- (e) Explain candidate key and primary key.
- (f) Explain concurrent execution of multiple transaction in detail.

P.T.O.

6. Attempt any **FOUR** of the following :

16

- (a) Explain client – Server architecture.
 - (b) Explain Third normal form.
 - (c) Describe state of transaction with neat diagram.
 - (d) Draw E-R diagram for airline reservation system. Here a passenger can book ticket from personal for a flight on same date.
 - (e) Describe serializability.
 - (f) Explain locking strategy in detail.
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