

Time: 3 Hours

Min. Passing Marks: 24

Maximum Marks:

Instruction to Candidates .

# (Unit-T)

1. (a) What are the goal of Query Optimization. Explain pushing section in alternative plan?

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(b) Explain the term system catalog? Also explain how catalog are stored?

## OR

- 1. (a) Describe Enumeration of alternative plan in brief?
  - (b) Write short note on:
    - (i) Decomposition of query into blocks
    - (ii) Estimation cost of a plan.  $[4 \times 2 = 8]$

## Unit-II

- 2. (a) Explain ORDBMS and OODBMS in brief?
  - (b) What are different structured data types available in object database system? [8]

#### OR

- 2. (a) What is the object database system? How object database system support for complex object and types of object? [8]
  - (b) Compare ORDBMS and OODBMS with various database system? [8]

#### Unit-TIP

- 3. (a) What is concurrency control? What are the recovery techniques to overcome from concurrency? [8]
  - (b) Explain parallelizing individual operation. [8]

## OR

- 3. (a) What is distributed DBMS? Explain architecture.
  - (b) Write short note on:
    - (i) Data replication and allocation.
    - (ii) Distributed query processing. [4×2:

## Unit-TV

- 4. (a) What is the database security? Explain Secret integrity and availability within databas security?
  - (b) Explain Access control in briefly?

## OR

4. (a) Explain the additional Issues related security?

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- (b) Write a short note on:
  - (i) Authorization
  - (ii) DOD Security level.

# 4×2=

## Unit-V

- 5. (a) Describe POSTGRES user interface? Explaints architecture?
  - (b) Explain storage and indexing in brief?

#### OR

- (a) Explain in brief Query processing Optimization and system architecture?
  - (b) What is XML? What is the background of XML with SGML & HTML?