

GUJARAT UNIVERSITY
B.E. Sem. VII (C.E.) Examination
Advance Database Management System

Saturday, 29th December, 2007]

[Time : 3 Hours
Max. Marks : 100

- Instructions :** (1) Attempt all questions.
(2) Answer to the two sections must be written in separate answer books.
(3) Assume suitable data if required.
(4) Figures to the right indicate full marks.

SECTION I

- 1 Attempt following. (18)
(a) Define transaction with its properties. Give and explain example of transaction. Also explain the role of commit and rollback in transaction.
(b) List and explain the three concurrency problem.
- 2 Attempt following. (16)
(a) State two phase locking protocol and two phase locking theorem. Also explain how two phase locking deals with RW, WR and WW conflicts.
(b) Explain how does a query run? Draw and explain all the stages of query processing.

OR

- 2 Attempt following. (16)
(a) Explain syntax of Grant and revoke statement with example.
(b) What is catalog? Explain various database statistics stored in it.
- 3 Attempt any two. (16)
(a) Briefly explain the classification scheme for constraints.
(b) List all the conditions to be satisfied by SQL view to be updatable.
(c) Explain the syntax for creating view with example.

SECTION II

- 4 Attempt following. (18)
(a) What is outer join? How it differs from inner join? Discuss outer join with example.
(b) List and explain the objectives of distributed database.
- 5 Attempt any two. (16)
(a) Explain local independence, fragmentation independence and replication independence.
(b) What is clustering? Explain it with examples.
(c) Discuss the storage structure of DB2.
- 6 Write a note on following(Any 4) (16)
(a) Audit Trails (b) Type Inheritance (c) data encryption standards.
(d) Concept of Data Warehousing. (e) pointer chains.