

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 110669

Roll No.

B. TECH.

Theory Examination (Semester-VI) 2015-16

ADVANCE DBMS

Time : 3 Hours

Max. Marks : 100

Section-A

1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. (2×10=20)

- (a) What are different types of database management system?
- (b) Discuss the different types of relational query language.
- (c) How can you define the spatial database?
- (d) Write down the objectives of data mining.
- (e) What do you mean by conflict serializability?
- (f) Explain the concurrent transactions.

- (g) What is locking of a transaction?
- (h) Write a short note on parallel query optimization.
- (i) Write a short note on query transformation.
- (j) What is LDAP?

Section-B

2. **Attempt any five parts. All parts carry equal marks:**
(10×5=50)

- (a) Why normalization process is necessary for a good database design? Discuss in detail the boyce-codd normal form with suitable example.
- (b) What are different techniques for database recovery? Discuss in detail.
- (c) Discuss the concurrency control mechanism in distributed database management system.
- (d) What are the different advantages of distributed database management system? Also discuss the different functions of a DDBMS to manage the complexity of data distribution.
- (e) Explain fragmentation process in detail.

(2)

- (f) What do you mean by mobile databases? Explain deductive databases?
- (g) Explain the traditional database recovery system.
- (h) Explain Multi joins. What do you understand by Semi joins?

Section-C

Note : Attempt any two questions from this section. (15×2=30)

- 3. Write short note on :
 - (a) Recoverable Schedule
 - (b) Cascade less Schedule
- 4. Suppose that the employee relation is stored in Madison and the tuples with salary < 100000 are replicated at New York. Consider the following three options for lock management: all locks managed at a single site, say ABC; primary copy with Madison being the primary for employees; and fully distributed. For each of the lock management options, explain what locks are set for all following queries. Also state from which site the page is read.
 - (i) A query at Austin wants to read a page of employees tuples with salary ≤ 50000

- (ii) A query at Madison wants to read a page of employees tuples with salary ≤ 50000
 - (iii) A query at New York wants to read a page of employees tuples with salary ≤ 50000 .
5. Write a short note on query formation with example. Explain join and its different types.

