

T.E. (IT) (Sem-V) (CBSSGS) (R-2012)

Paper / Subject Code: 30804 / ADVANCED DATABASE MANAGEMENT SYSTEMS

(3 Hours)

[Total Marks: 80]

- N.B. : (1) Question No. 1 is **compulsory**
 (2) Solve any **three** questions out of remaining **five**
1. (a) Explain View and Give Difference between View and Base Table 5
 (b) What is Write –Ahead Logging and when it is used? 5
 (c) Write a short note on SQL Injection. 5
 (d) Define a lock and describe the types of locks used in concurrency control. 5
 2. (a) Design a schema in SQL for a Library System. Show one example each for PRIMARY KEY and FOREIGN KEY constraint. Create one assertion for the following Constraint: "No member can borrow more than three books at a time". 10
 (b) Explain use of SQLJ with two types of iterators available in SQLJ. 10
 3. (a) Describe ARIES recovery algorithm with example. 10
 (b) Explain Query Processing and Optimization in Distributed database. 10
 4. (a) Explain multilevel indexing with suitable example? 10
 (b) Explain with suitable example object identity, object structure and type constructors in OODB. 10
 5. (a) Explain data warehouse architecture in detail. 10
 (b) Compare MAC and DAC and RBAC for multi level security. 10
 6. Consider a Dataware house for a hospital where there are three dimensions: 20
 - 1) Doctor
 - 2) Patients.
 - 3) Time and two measures count and charge.
 Using above example perform following
 - a. Star schema
 - b. Snakeflake schema
 - c. Rollup & drilldown operations
 - d. Pivot operation
 - e. Slice and Dice operations
