

IMS ENGINEERING COLLEGE	Section: IMSEC/QM/ 5.3
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	Issue No. : 02
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Prepared by: MR	Approved by: Director

Subject Name: Database Management System	Subject Code	NCS-502
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ASSIGNMENT 5

Objective:

1. Understanding the concept of concurrency control techniques.
2. To develop an understanding of recovery control techniques of concurrent transactions.

Outcome:

1. The ability to develop an understanding of the various locking techniques and concurrency control in DBMS.
2. The ability to understand the concept of secure transactions.

Q1. Explain the following:

- a) When a transaction is rolled back under timestamp ordering, it is assigned a new timestamp. Why can it not simply keep its old timestamp?
- b) In multiple-granularity locking, what is the difference between implicit and explicit locking?
- c) Although SIX modes is useful in multiple-granularity locking, an exclusive and intend-shared (XIS) mode is of no use. Why is it useless?
- d) What is the purpose of Blind write in View serializability?
- e) Differentiate between roll back and recovery. Define log based roll back or recovery.

Q2. What is meant by the concurrent execution of database transactions in a multiuser system? Discuss why concurrency control is needed, and give informal examples.

Q3. Explain the working of multiple-granularity scheme in concurrency control.

Q4. What do you mean by times? Discuss timestamp-ordering protocol in details. Also discuss Thomas' rule.