

CPS610 DATABASE SYSTEMS II
TERM TEST W96

Please: Answer All Questions (5); There are 2 pages; No Notes; Closed Book; Total Marks 25 - (5x5)

1. Explain the terms **Roll Forward & Roll Backward Recovery**.

2. The Transaction Model.
 - (a) What is a Transaction. Explain in detail.
 - (b) Explain the Transaction States.

3. Distinguish between the two concepts :
Security & Integrity in Database Systems. (Short Answer)

4. **Concurrency Control**. Suppose Transactions T1, T2, & T3 perform the following operations:
T1: Add one to A.
T2: Double A
T3: Display A and then set A to one.
where A is some item in the db.
Suppose T1, T2, & T3 are executing Concurrently. If A has initial value zero, how many possible correct results are there. Enumerate them & give the results.

5. **Locks**. Explain the various Lock Modes & Lock compatibility.