

CONCURRENCY CONTROL

Preview from Notesale.co.uk
Page 1 of 34



Concurrency Control Schemes

- Concurrency control schemes are divided into 2 categories:
 - Pessimistic or Conservative Approach
 - Optimistic Approach

Pessimistic Execution

□ Validate

□ Read

□ Compute

□ Write

Two methods for implementing TS

- Use the value of the system as the timestamp (System Clock).
- Use a logical counter that is incremented after a new timestamp has been assigned.

Validation Based Protocol Phases...

□ Validation Phase:

- Come after end of Read phase.
- Certain checks are performed to ensure that no conflict has occurred.
- For Read only transactions this phase consist of checking that the data elements read are ok, no conflict is there then it is Committed.
- If conflict is there then transaction is Aborted or Restarted.
- For Updating transactions, it checks whether current transaction leaves database in a consistent state, if not then transaction is Aborted.