INM370 – Advanced Databases

Tutorial 7 – Distributed Transaction Management/ Concurrency Control/Recovery, and Replicated Databases

This week's tutorial is concerned with Transaction Management/Concurrency Control/Recovery in distributed databases, and it introduces replicated database systems.

Question 1. In a distributed environment, locking based algorithms can be classified as centralized, primary copy or distributed. Compare and contrast these algorithms.

Question 2. Describe the term "non-blocking" protocol, and explain how it is related to two-phase commit (2PC) protocol.

Question 3. Outline two alternative topologies to the Centralized topology of two-phase commit protocol (2PC).

Question 4. Explain the importance of data replication.