

Printed Pages : 3



2144

421

NMCA-015/MCAE-016

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 214433

Roll No.

--	--	--	--	--	--	--	--	--	--

M.C.A.

(SEM-IV) THEORY EXAMINATION 2014-15

Distributed System

Time : 3 Hours]

[Total Marks : 100

Note: Attempt all questions. All questions carry equal marks.

1. Attempt any two parts of the following: 10×2=20
 - a) Explain popular applications of database. Compare distributed with centralized database.
 - b) Explain the methods for concurrency control in distributed transactions.
 - c) Explain conflict and view serializability with example. Also differentiate between them.

2. Attempt any two parts of the following: 10×2=20

214433]

(1)

[Contd...

- a) What do you mean by two-phase locking? How it is different from strict 2-phase locking? Explain briefly.
- b) Explain lock based protocol in detail. What is the role of time stamp based protocol in locking.
- c) Describe architecture for locking scheduler.
3. Attempt any two parts of the following: $10 \times 2 = 20$
- a) Explain flat and nested distributed transaction with suitable example.
- b) What is replication? Explain important types of replication techniques.
- c) Write short notes on fragmentation and distributed commit/abort conditions.
4. Attempt any two parts of the following: $10 \times 2 = 20$
- a) Explain issues of recovery in distributed database. Explain types of failure in distributed database.
- b) What is check point based recovery? Give the advantages and disadvantages of different types of check point based recovery method.
- c) Explain multiway join and semi joins with example.
5. Attempt any two parts of the following: $10 \times 2 = 20$
- a) Write short notes on distributed query processing and lazy replication techniques.
- b) Give architectural models for distributed DBMS. What do you mean by distributed data processing.
- c) Discuss issues of atomicity in distributed database. Explain distributed query optimization algorithms.

—x—