Printed Pages: 3 NCS-067

(Following Paper ID and Roll No. to be filled in your Answer Books)	
Paper ID : 110667	Roll No.

B. TECH.

Theory Examination (Semester-VI) 2015-16

DISTRIBUTED DATABASE

Time : 3 Hours *Max. Marks : 100*

Note: Attempt questions from all Sections as per directions.

Section-A

1. Attempt all parts of this section. Answer in brief. (2×10=20)

(a) Define Granularity of a Lock.

(b) Differentiate between Homogeneous and Heterogeneous distributed database system.

(c) What is check point based recovery?

(d) What do you mean by distributed objects?

(e) Draw the architecture for locking scheduler.

(f) What do you mean by fragmentation?

(g) What are commit protocols?

(h) What is Replication?

(i) What do you mean by multidata base system?

(j) What are the objectives of data distribution?

Section-B

2. **Attempt any five questions from this section.** (10 × 5 = 50)

(a) What is Recovery in Message Passing Systems? Explain concept of inconsistent states.

(b) Justify the statement :

"Semi join can be used to reduce the cost of a join operation in a distributed environment."

(c) Explain the cost based query optimization for Distributed Database in detail.

(d) Define Distributed Deadlock detection. Also explain the Edge-Chasing Algorithm for distributed Deadlock detection.

(e) Explain Flat and Nested Distributed Transaction with suitable example.

(f) Write short notes on the following with examples :

(i) Human oriented workflow.

(ii) Describe the various existing way of handling workflow with example.

(g) Describe Transaction Model. What are the termination conditions of transaction?

(h) Describe 2-Phase Commit Protocol. What are the demerits of this protocol? How 2PC is different from 3PC?

Section-C

Attempt any two questions from this section.

(15×2=30)

3. Explain Conflict and View Serializability with example.

4. Discuss the following w ith suitable example :

(i) Orphan messages

(ii) Inconsistent messages.

5. Explain the various phrases in distributed query processing in detail.