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

PAPER ID : 2713 Roll No. | | | | | | | | | | |

B. Tech.

(SEM. VII) THEORY EXAMINATION- 2011-12

DISTRIBUTED DATABASE

Time : 3 Hours *Total Marks : 100*

Note :– Attempt **all** questions.

1. Attempt any **two** parts of the following : **(10×2=20)**

   (a) Explain popular applications of databases. Compare distributed database with centralized databases.

   (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)**

   (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 schedular.

3. Attempt any **two** parts of the following : **(10×2=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 :

(i) Fragmentation (ii) Distributed commit/abort conditions.

4. Attempt any **two** parts of the following : **(10×2=20)**

(a) Explain Issues of Recovery in distributed database. Explain types of failure in distributed system.

(b) What is check point based Recovery ? Give the advantages and disadvantages of different types of check point based recovery method.

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

5. Attempt any **two** parts of the following : **(10×2=20)**

(a) Define Distributed Deadlock detection algorithms. Write explain path pushing algorithm for distributed dead lock Detection.

(b) Explain Multiway joins and semi joins with example.

(c) Write short notes on :

(i) Distributed query processing

(ii) Lazy Replication Techniques.