Printed Pages : 3 TCS32

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

PAPER ID : 0106 Roll No.

B.Tech

(SEM VII) ODD SEMESTER THEORY EXAMINATION 2009-10

DISTRIBUTED DATABASE

Time : 3 Hours] *[Total Marks : 100*

Note : *Attempt* ***all*** *questions.*

1 Attempt any **two** parts : **2×10=20**

(a) (i) Compare the characteristics of a central database and distributed database over a network.

(ii) List and explain in brief five problem in distributed database system.

(b) What do you mean by Distributed Objects? Explain the concept of remote method invocation with a suitable example. How are the parameters and result passed to a remote procedure? Explain with a suitable example.

(c) What do you mean by multidata base system ? Explain in brief and also compare the two-tier and three-tier client architecture.

2 Attempt any **two** questions : **2×10=20**

(a) Write short notes on the following with example:

(i) Concurrency Management

(ii) Transactioal workflow

(b) (i) Explain Human-oriented Workflow.

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

(c) Explain how the two phase commit protocol for nested transactions ensure that if the top level transaction commits all the descendants are committed or aborted.

3 Attempt any **two** parts : **2×10=20**

(a) What are distributed database? What are the advantage of Data Distribution and Data Replication?

(b) Write and explain the characteristics of query processors.

(c) What do you mean by fragmentation ? Explain horizontal and vertical fragmentation with example.

4 Attempt any **two** parts : **2×10=20**

(a) Describe the following the primary copy architecture model for the management of replicated data.

(b) Write short notes on the following :

(i) The gossip architecture

(ii) The dirty read problem

(c) In multiversion times temp ordering read operations can access tentative version of objects. Give an example to show how cascading aborts can happen if all read operations are allowed to proceed immediately.

5 Attempt any **two** parts : **2×10=20**

(a) Explain the buffer architecture and buffer management schemes.

(b) What are commit protocols? Explain how two-phase commit protocols respond to feature of participating sits and failure of coordination.

(c) Write short notes on the following :

(i) Router management

(ii) Characteristics of faults.