

DDBMS (End Term - Dec 2008)

Note : Q1 is compulsory. Attempt one question from each unit.

Q1. Answer all questions

(5*4=12)

a) There are some rules which must be followed when defining fragments.

- I) Completeness Condition
- II) Reconstruction Condition
- III) Disjointness Condition

Define each of the following terms.

b) What is two phase locking in distributed concurrency control method?

c) What are the properties of transactions?

d) Describe Client Server Architecture of DDBMS.

Unit – I

Q2.

a) What is Reference Architecture for a Distributed Database.

(6)

b) What do you mean by mixed fragmentation?

(4)

Q3.

a) Discuss the design issues of database fragmentation.

(6)

b) Draw the operator tree for the following query Q1.

(4)

Q1: $P_{J_{snum}} \bowtie_{SL_{AREA} = \text{“NORTH”}}$

(Supply $JN_{DEPTNUM} = DEPTNUM \text{ DEPT}$)

Unit - II

Q4.

a) What is classification of concurrency control algorithm?

(5)

b) Explain serializability theory with example.

(5)

Q5.

a) Explain reliability concepts and measure. (5)

b) What are the failure and fault tolerance in distributed system? (5)

Unit - III

Q6.

a) What do you mean by transaction model? (5)

b) What are the Termination Conditions of a transaction? (5)

Q7.

a) What are the types of transactions? (5)

b) What is Distributed Data Dictionary Management? (5)

Unit – IV

Q8.

a) Explain through diagram the following :
I) Shared Disk Architecture
II) Shared Nothing Architecture
III) Cache Only Architecture (6)

b) Explain Distributed Database Server Approach. (4)

Q9.

a) What do you mean by Open Database Connectivity? (5)

b) What do you mean by heterogeneous and homogeneous DDBMS? (5)