Sub Code:NBC025

Paper Id: 206904 Roll No:

MCA DUAL DEGREE
(SEM-IX) THEORY EXAMINATION 2019-20
DISTRIBUTED DATABASE

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

Note: Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 10 = 20

a. Define distributed database and its types?
b. What do you meant by Transaction Processing?
c. Define query optimization?
d. Give the difference between fragments and allocation of fragments?
e. Define concurrency control in distributed database?
f. Define SUM, AVG, and COUNT function with proper syntax?
g. What do you meant by Semi Join and Projection?
h. Define transaction and its properties?
i. What do you meant by grouping function?
j. Define Database Design?

SECTION B

2. Attempt any *three* of the following: 10x3=30

a. Explain timestamp based concurrency algorithms in detail?
b. Describe Distributed Database Architecture in details?
c. Mention about Recovery in Message Passing System. Explain concept of inconsistent states?
d. Discuss the various concurrency techniques in details?
e. Explain Distributed Database Administration?

SECTION C

3. Attempt any *one* part of the following: 10x1=10

a. What are the objects of distributed query processing? Explain.
b. Explain the difference is between distributed and replicated database?

4. Attempt any *one* part of the following: 10x1=10

a. Explain query optimization algorithms?
b. What do you meant by Data Fragmentation? Explain the various Data Fragmentation methods?

5. Attempt any *one* part of the following: 10x1=10

a. Explain grouping and aggregate function with example?
b. Discuss parametric queries with example?

6. Attempt any *one* part of the following: 10x1=10

a. Discuss the Equivalence transformation of queries?
b. Explain the concepts in Orphan in distributed database.

7. Attempt any *one* part of the following: 10x1=10

a. Discuss the Management of Distributed transaction and concurrency control?
b. Explain the example of Distributed Database System?

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