Code No. 11251/O/BL

FACULTY OF INFORMATICS

M.C.A. IV-Semester (CBCS) (Main & Backlog) (Old) Examination, August 2021

Subject: Distributed Databases (PE – I)

Time: 2 Hours **Max. Marks: 70**

(Missing data, if any, may be suitably assumed)

Note: Answer any four questions. **(4 x $17^{1/2}$ = 70 Marks)**

1 (a) What are Relational Database? How is transaction management performed in it?
(b) Explain about Data Mining and analysis in Distributed Database.

2 (a) Explain about Distributed Databases architecture in detail.
(b) What are Object-Based Databases?

3 (a) Distinguish Relational-Algebra operations over distributed databases.
(b) Elaborate about Modification of Distributed databases.

4 (a) Explain the selection and sorting operations over Distributed databases.
(b) Explain about Null values storage in Distributed databases.

5 (a) Define Materialised Views in Distributed databases.
(b) Explain about Interoperation Parallelism.

6 (a) How are Intraquery Parallelism handled in Distributed Databases?
(b) What is I/O Parallelism?

7 (a) Explain about Data Fragmentation.
(b) What is Transparency? And how its related with update applications?

8 (a) What is Design of Database Fragmentation?
(b) Explain how Integrity constraints are maintained in DDB?

9 (a) Define the term parametric queries.
(b) What are Access control Models?

10 (a) Explain about transforming global queries into fragment queries.
(b) How are join queries handled in framework for DDB?

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Code No. 11382/N

FACULTY OF INFORMATICS

M.C.A. IV-Semester (CBCS) (Main & Backlog) (New) Examination, August 2021

Subject: Distributed Databases (P.E-I)

Time: 2 Hours **Max. Marks: 70**

(Missing data, if any, may be suitably assumed)

Note: Answer any four questions. **(4 x $17^{1/2}$ = 70 Marks)**

1 (a) Write notes on database system applications.
(b) Elaborate semistructured database.

2 (a) Describe the Database Languages.
(b) Discuss the transaction management.

3 (a) Explain the structure of relational databases.
(b) Give an overview of Relational Algebra?

4 (a) Discuss about Join Operations?
(b) How to evaluate the expressions.

5 (a) Give the step by step process to transform relational expression.
(b) Write about I/O parallelism.

6 (a) What are materialized views? Describe it.
(b) Explain the design of parallel systems.

7 (a) Enumerate and explain the types of data fragmentation.
(b) Elaborate the integrity constraints in DDB.

8 (a) Discuss the reference architecture for DDB.
(b) Describe the allocation of fragmentation.

9 (a) Specify the equivalence transformation for queries.
(b) Give an account of Access Control Model.

10 (a) Describe aggregate function evaluation.
(b) Write about the database security.

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