Roll No. | | | | | | | | | | | | Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (CSE) (Sem.–7,8)

DISTRIBUTED DATABASES

Subject Code : BTCS-706-18

M.Code : 90497

Date of Examination : 06-01-2023

Time : 3 Hrs. Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a) What are homogeneous databases?

b) What are the advantages of fragmentation?

c) List down the properties of transactions?

d) What is the objective of query optimization?

e) What are the various methods to prevent deadlock?

f) List down the reliability issues in distributed databases.

g) Define integrity constraints.

h) What is the role of load balancing in parallel database systems?

i) What do you mean by data replication?.

j) How global query is converted into fragmented query?

SECTION-B

2. Discuss the concept of voting and elections used in distributed databases.

3. Explain the distributed query processing architecture.

4. Discuss the goal of transaction management.

5. Compare the distributed databases with centralized databases.

6. Discuss the distribution transparency for read only applications with example.

SECTION-C

7. Explain the detailed algorithm for *no-fix/no-flush* local recovery.

8. Write a short note on :

   a) Multi-databases

   b) Parallel Query Processing

9. Draw and explain the architecture of Distributed Databases.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.