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Code No: 815BQ

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
MCA V Semester Examinations, August - 2017
DISTRIBUTED DATABASES

Time: 3 Hours   **Max. Marks: 60**

Note: This question paper contains two parts A and B.

Part A is compulsory which carries 20 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 8 marks and may have a, b, c as sub questions.

PART - A

5 × 4 Marks = 20

1.a) List and explain the necessary components to build a distributed database. [4]
 b) Compare parametric queries with nested queries. [4]
 c) List out the properties of transactions. [4]
 d) Describe reliability protocols in distributed systems. [4]
 e) List out the activities of Database administrator. [4]

PART - B

5 × 8 Marks = 40

2. What are integrity constraints? Discuss how referential integrity is maintained in a distributed system. [8]

OR

3. What are the distribution database design issues? Explain with examples. [8]

4. Discuss with a relevant example, how distributed query processing is done using semi join. [8]

OR

5. What is query processing? Explain various steps in distributed query processing along with transforming global queries to fragmented queries. [8]

6. Discuss the differences in concurrency control and recovery in centralized and distributed systems. [8]

OR

7. Compare Distributed Deadlock prevention to Distributed Deadlock Avoidance. Explain one scheme of Distributed deadlock Detection and Recovery. [8]

8. How non blocking commitment protocols ensure reliability? Explain with an example.[8]

OR

9. Explain various techniques used for protecting the database against unauthorized access to a distributed database. [8]

10. Discuss the necessary characteristics a system must satisfy to be considered as an Object DBMS. [8]

OR

11. Briefly explain various components of object query processor architecture. [8]

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