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## **MCADD-603**

### **M.C.A. (Integrated ), VI Semester**

Examination, November 2019

### **Advanced DBMS**

*Time : Three Hours*

*Maximum Marks : 70*

**Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) List the three design goals for relational database and explain why each is desirable.  
b) Discuss the object oriented database and how specialization and generalization will work in object oriented database.
2. a) Define the concept of aggregation. Give any two example to illustrate the use of this concept.  
b) Discuss the architecture of object oriented and object relational database.
3. a) Explain briefly :  
i) Replication  
ii) Fragmentation  
b) Explain deadlock handling in distributed database.
4. a) Discuss cost estimation in query optimization.  
b) Discuss the factors that do not appear in centralized systems that affect concurrency control and recovery in distributed systems.

5. a) Define transaction. Differentiate between nested and multilevel transactions. Give example.  
b) What is the role of shared disk systems? How is it important in transaction processing.
6. a) Explain trigger used in SQL. Give example.  
b) Discuss general strategies of query processing.
7. a) Explain R tree and quad tree.  
b) How can we access database through web?
8. Write short note:
  - i) XML database
  - ii) Recursive query processing
  - iii) Commit protocols
  - iv) Data partitioning.

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