**St. Joseph’s College (Autonomous), Bangalore**

**Date: 17-04-2017**

**II Semester Examination, April 2017**

**M.Sc Computer Science**

**MCS 8315: Advance Course in DBMS**

**(*For supplementary candidates of 2015 batch only)***

***Attach this question paper with the answer script***

**Time 2.5 Hrs Max Marks 70**

**This paper contains 1 printed pages and 1 part**

**PART-A**

**Answer any SEVEN questions 10 x7 = 70**

* 1. What is functional dependency? Explain all the axioms with suitable examples.
  2. Write in brief about 3NF, BCNF, 4NF with relational examples.
  3. Explain general strategies for query optimization.
  4. Explain any five laws involving selection & projection in Algebraic manipulation.
  5. Explain Integrity constraints query by example.
  6. Write a note on security in statistical database.
  7. Explain the meaning of Locks and give the difference between live lock and Deadlock with a various transaction as example.
  8. Write an algorithm for serialiablity test for schedules with read/write lock with suitable example.
  9. Explain the concept of concurrency control & reliability in distributed database system.

**MCS-8315-A-17**