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

**Date: 13 – 04 - 2018**

**II Semester Examination, April 2018**

**M.Sc. Computer Science**

**CS 8315 : Advance Course in DBMS**

(For supplementary candidates)

Do not write the register number on the question paper

Please attach the question paper along 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. Define Normalization. Write in detail about 1st, 2nd and 3rd normal forms.
2. Write in detail about the closure of the set of dependencies.
3. Explain about the laws involving selection and projection in detail.
4. Write an algorithm for Optimizing Relational Expressions.
5. Define integrity. Write in detail about Integrity Constraints using Query by Example.
6. Write in detail about System Recovery.
7. Explain serializability test for simple transaction model.
8. Write about Serializability for Model with Read and write Locks.
9. Define Concurrency. Explain concurrency in Distributed database systems.
10. What is a Transaction? Explain Query Optimization of Distributed Transactions.

**CS-8315-B-16**