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| **ST. JOSEPH’S COLLEGE (AUTONOMOUS), BANGALORE-27** | | | | | | | | |
| **MSc - II SEMESTER** | | | | | | | | |
| **SEMESTER EXAMINATION: APRIL 2018** | | | | | | | | |
| **CS 8118 Advanced Database Management System and Hadoop** | | | | | | | | |
|  |  |  |  | |  |  |
| **Time- 2 1/2 hrs** | | | | **Max Mark 70** | | | | **Max Marks-70** | |
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| **This paper contains two printed pages and one part** | | | | | | | | |
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1. With an example parse tree, transform the tree into one that corresponds to the most efficient way of processing the query. (10)
2. Write short notes on-
3. Two-phase locking (5)
4. ACID properties. (5)
5. a) Define Deadlock. (3)

b)Explain how Deadlock occurs during Concurrency Control. (7)

1. a) Explain how OO concepts are used to extend traditional ER data modeling. (10)

5. Explain Client Server Database System Architecture with a neat diagram. (10)

6. Write in detail about

a) Commit protocols (5)

b) Discuss Time Stamp Ordering protocol for Concurrency control.(5)

7. Describe the concept of data replication and explain various types. (10)

8. Explain in detail about HDFS architecture in Hadoop. (10)

9. Write short notes on – Learn name node (4)

Data node (3)

Secondary name node (3)

**CS8118\_A\_19**