



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)  
उत्तराखण्ड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

MCA 2<sup>ND</sup> YEAR 4<sup>TH</sup> SEMESTER ASSIGNMENT

*Last Date of Submission: 15 July 2015*

**Course Title:** Advanced database management system

**Course Code:** MCA-13

**Year:** 2014-15

**Maximum Marks:** 40 Marks

**Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answers 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.**

1. Define First, Second and Third normal forms with examples.
2. What is Functional Dependency? Explain.
3. What are Codd's rules?
4. What are the DDL and DML commands?
5. What are procedures in SQL?
6. What are the characteristics of SQL?
7. What is relational algebra and what are its uses?
8. What is the difference between strong entity and weak entity?

**Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answers 02 questions only.**

1. What is database security? What are the different database security issues?
2. Explain the role of a Database Administrator.
3. Describe conceptual, logical and physical data model.
4. What is a database transaction? Describe the different operations that are performed during a transaction.