UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)

BCA-11 2nd YEAR 3rd SEMESTER ASSIGNMENT

Last Date of Submission: 15 Jan., 2015

Course Title: Database Management System   **Course Code: BCA-09**

Year: 2014-15 Summer   **Maximum Marks: 40 Marks**

Section 'A'

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. Explain specialization and generalization feature of ER diagram with example.
2. What are the responsibilities of a DBA?
3. Explain shadow paging.
4. What are anomalies in database design? How can we solve it?
5. Explain and Draw the state diagram of a transaction?
6. Why concurrency control is needed?
7. Explain ACID properties of transaction.
8. Explain mandatory access control of database security.

Section 'B'

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

1. (i) What is join? Explain various type of joins with example.
   (ii) Explain DDL,DML,DCL 05
2. (i) What is a transaction? Explain its four important properties.
   (ii) What is functional dependency? Explain its usage in database design.
3. What is "Two-Phase Locking Protocol" and "Strict Two-Phase Locking Protocol"?
4. Draw E – R Diagram for the University Management System.