7. (a) What is ER Diagram? Draw the ER diagram of library management system.

(b) What do you mean by key? Explain different types of key with suitable example.

Unit-IV

8. Define normalization. How is it useful and used? Explain by giving examples, the conditions that are necessary for a relation to be in 1NF, 2NF, 3NF, BCNF

9. (a) What is concurrency control? How is it implemented? Explain.

(b) Differentiate between relational algebra and relational calculus ?

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B.C.A. 3rd Semester (New)

Examination– November, 2016

Introduction to Database System

Paper-BCA-203

Time : 3 hours	Max. Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Attempt **five** questions in all by selecting **one** question from each unit. Q. No. 1 is **compulsory**. All questions shall carry equal marks.

1. (a) What is the difference between data and information ?

(b) What are the components of database system ?

(c) What is schema ?

(d) What is instance ?

(e) What is domain ?

(f) What is relationship type ?

(g) What is view ?

(h) What is function dependency ?

Unit-I

2. What is database ? What are the objectives of database? Also discuss the advantages and disadvantages of database.

3. (a) What do you understand by a Query Language? Distinguish between DDL, DML And DCL. Explain any two DDL & DML command using suitable examples.

(b) Explain the role of DBA.

Unit-II

4. (a) What is database independence and why is it important? What is the difference between logical and physical data independence?

(b) Explain client server architecture to DBMS.

5. (a) Explain the three-level architecture of DBMS with the help of an example.

(b) Describe object-based data model with an example.

Unit-III

6. Define the term 'data model'. Explain Hierarchical model and network model in detail.

7. (a) What is ER Diagram? Draw the ER diagram of library management system.

(b) What do you mean by key? Explain different types of key with suitable example.

Unit-IV

8. Define normalization. How is it useful and used? Explain by giving examples, the conditions that are necessary for a relation to be in 1NF, 2NF, 3NF, BCNF

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