

Roll No. 7016532

97671

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.

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 ?

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

97671-7550-(P-4)(Q-9)(16) (4)

97671-7550-(P-4)(Q-9)(16) (1)

[ Turn Over

- (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.

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(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.

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