

Roll No.

97631

B.C.A. 3rd Semester (New)
Examination–December, 2012

Data Base System

Paper-BCA-204

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 : Questions No. 1 is **compulsory**. In addition to compulsory question, students will have to attempt **four** more questions selecting **one** question from each unit.

1. Explain the following : **16**

(a) Components of Data Base System

(b) DBMS languages

(c) ER diagrams

- (d) Integrity constraints
- (e) Relational algebra
- (f) Views
- (g) Functional dependency
- (h) Security.

Unit-I

2. What do you mean by DBMS ? Explain the advantages and disadvantages of DBMS. 16
3. (a) What do you mean by Database Administrator (DBA). Explain the responsibilities of DBA. 8
- (b) What do you mean by the term "Application Developers and Users." Explain. 8

Unit-II

4. What do you mean by Database System Architecture ? Explain in detail. 16

5. (a) What do you mean by Database Independence. Also explain the Logical and Physical Data Independence. 8

(b) Explain the client server architecture to DBMS: 8

Unit-III

6. Explain the following : 16

(a) Attributes

(b) Instances

(c) Domain

(d) Entity types and entity sets.

7. (a) What do you mean by key ? Explain in detail the different types of keys. 16

(b) Explain the different types of Data models :

(i) Network Data Model

(ii) Hierarchical Data Model

(iii) Relational Data Model

Unit-IV

8. What is normalization ? Explain the different types of normalization with suitable example. 16

9. Explain the following : 16

(a) Security

(b) Concurrency

(c) Query optimization

(d) Relational database design.
