



RF-1827

First Year B. C. A. (Sem. II) Examination

April / May – 2010

P-205 : Database Management System

Time : 3 Hours]

[Total Marks : 70

**Instructions :**

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="F.Y. B.C.A."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="205 - DATABASE MANAGEMENT SYSTEM"/>	<input type="text"/>
Subject Code No. : <input type="text" value="1"/> <input type="text" value="8"/> <input type="text" value="2"/> <input type="text" value="7"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="NIL"/>	<input type="text"/>
	Student's Signature

(2) Figures on the right indicate marks.

(3) Take assumption whenever necessary.

1 Answer the following questions : 12

- (1) Define DDL, DCL and DML with example.
- (2) What is BCNF? How does it differ from 3NF?
- (3) What is the different between super key and candidate key?
- (4) What are object-based logical models? Describe any one.
- (5) What is trivial and non-trivial functional dependency?
- (6) What is data abstraction? Mention its level.

2 (a) What is data dictionary? How the data dictionary is maintained? 8  
Discuss integrity related issues pertaining to Data Dictionary.

Or

Write a note on database system users.

(b) Define relationship. Explain types of relationship with example. 5

Or

What do you mean by normalization? Explain BCNF in detail.

3 Write notes on following : (any three) 21

- (i) Discuss lossless-join decomposition.
- (ii) Explain specialization and Aggregation in detail.
- (iii) Explain entity set and types of attributes in detail.
- (iv) Explain different types of keys.

- 4 Answer following :
- (a) Construct an E-R diagram for a car insurance company whose customers own one or more cars each. Each car has associated with it zero to any number of recorded accidents. 6
- Or
- Construct an E-R diagram for a hospital with a set of patients and set of Medical doctors. Associate with each patient a log of the various tests and examination conduct
- (b) Explain following.
1. How to set relationship between tables in access? 4
  2. What is cascade update and cascade delete ? 2
- Or
1. What is check constraint? How to define it? 4
  2. How to primary key define on table? 2
- 5 Consider following relations in database and solve the queries. 12

Book\_mast ( book\_no, book\_name, author, publisher, no\_of\_copy)  
 Stud\_mast( lib\_no, stud\_name, book\_no, no\_of\_copy)  
 Transaction (trans\_no,trans\_type, lib\_no, book\_no, no\_of\_copy, trans\_date)

- (1) Display all student name who have more than two books.
- (2) Display all books whose publisher is "BPB".
- (3) Display all students who have "DBMS" book.
- (4) Delete records from stud\_mast for all students who have "ORACLE" book.
- (5) Change transaction type to "R" (Return) for all transaction whose transaction type is "I" (Issue) and book\_name = "Let US C"
- (6) Display all student name who get book publisher "BPB"