Time : 3 Hours] [Total Marks : 70

Instructions :
(1)

Fillup strictly the details of ☞ signs on your answer book.	Seat No. :
Name of the Examination :	
☞ **F.Y. B.C.A.**	
Name of the Subject :	
☞ **205 - DATABASE MANAGEMENT SYSTEM**	
☞Subject Code No.: **1** **8** **2** **7** ☞Section No. (1, 2,......) : **NIL**	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 çandidate 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 deatil.

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 6
      own one or more cars each. Each car has associated with it zero to any
      number of recorded accidents.

<div align="center">Or</div>

      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

<div align="center">Or</div>

      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"