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OBCA/D-20   1231
INTRODUCTION TO DATABASE SYSTEM
BCA-234

Time : Three Hours]   [Maximum Marks : 80

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. **1** is compulsory. All questions carry equal marks.

Compulsory Question

1. Define the following terms :   8×2=16
    (a) File   (b) Record
    (c) Data Manager   (d) Query processor
    (e) Entity Set   (f) Composite attribute
    (g) Domain   (h) Entity Integrity.

Unit I

2. Define DBMS. Explain the functioning of DBMS along with its components.   **16**

3. (a) What is the need of Database System ? How is it beneficiary over file management system ? Explain by giving suitable example.   **8**

(b) Briefly describe the different types of users in DBMS. **8**

Unit II

4. Explain record based data model and its characteristics and types in detail. **16**

5. Differentiate between the following :
   (i) Logical Data Independence *vs.* Physical Data Independence **6**
   (ii) Centralized DBMS *vs.* Client Server Architecture DBMS. **6**
   (iii) Schema *vs.* Instances. **4**

Unit III

6. Define E-R Model along with its advantages. Create E-R Model for Banking System. **16**

7. Write short notes on the following :
   (a) Generalization and Specialization **8**
   (b) Entity Type and Relationship Type. **8**

Unit IV

8. Explain all the keys used in relational model by giving suitable example. **16**

9. (a) What do you mean by base table and views in RDBMS ? How does base table differ from views in RDBMS ? **8**

    (b) How insert, delete and update operation is performed over a relation ? Which relational constraints may be violated during these operations ? **8**