

**BACHELOR OF COMPUTER  
APPLICATION II YEAR  
EXAMINATION, 2010**

**Paper — BCAD-304**

**DATABASE APPLICATION IN MS-ACCESS**

*Time : 2½ Hours*

*Maximum Marks : 70*

*(Write your Roll No. at the top immediately  
on receipt of this question paper.)*

*Answer ALL questions of Section A, any SIX questions  
of Section B and any THREE questions of Section C.*

**SECTION - A (1 × 10 = 10)**

Fill in the blanks:

1. Database management is \_\_\_\_\_.
2. DML stands for \_\_\_\_\_.
3. A TUPIE in a Database can be defined as \_\_\_\_\_.
4. Data about user's data is referred to as \_\_\_\_\_.
5. If  $t_1[x] = t_2[x] \Rightarrow t_1[y] = t_2[y]$   
is true then, attribute set y is said to be \_\_\_\_\_ on  
attribute x.
6. Normalization is \_\_\_\_\_.

P.T.O.

7. Object oriented databases are designed to work well with \_\_\_\_\_.
8. MS-Access is \_\_\_\_\_ based application.
9. When the same data values are stored in multiple copies in the database it is known as \_\_\_\_\_.
10. An \_\_\_\_\_ is used to quickly retrieve information from a database project.

**SECTION-B** (6 × 5 = 30)

11. What do you understand by DBMS ? Describe its characteristics.
12. What are the different data models used in DBMS ? Which one do you consider best and why ?
13. What is the need of Normalization ? Explain 2NF with the help of an example.
14. What is the importance of SQL in Databases ?
15. What are the different advantages of using a DBMS ?
16. Discuss the Three-Schema architecture of DBMS.
17. Discuss the importance of Object-oriented Database.
18. Discuss different types of Data definition and Data Manipulation commands.

SECTION - C (3 × 10 = 30)

Differentiate the following :

19. 1NF vs. 2NF
20. E-R model vs. Hierarchical Model.
21. Write short notes on any *two* of the following:
  - a) Data abstraction
  - b) Functional Dependencies
  - c) Database application with MS-Access.
22. Discuss the different types of anomalies in Database with suitable examples.
23. Discuss the different types of constraints occurring in DBMS. What is structural constraints and what are its types ?
24. Consider the following relational database for the company and answer the following queries in relational algebra.  
EMP(EMPNo, ENAME, BDATE, SEX, DNo.)  
DEPT(DEPTNo, DNAME)  
PROJECT (PNUMBER, PNAME)
  - a) List all the employees whose BDATE is more than 1975
  - b) Retrieve the name of Employee who works in department 2.