Question Paper Code : 3023

B.A./B.Sc. (Part-II) Examination, 2018

(New Syllabus)

COMPUTER APPLICATION

[Second Paper]

(DBMS and RDBMS)

Time : Three Hours]   **[Maximum Marks : 50**

Note : Answer **five** questions in all. Question **No.1** is **compulsory**. Besides this, **attempt one** question from each of the Units **I,II, III** and **IV.**

1.   Attempt all questions.   [2x10=20]

     (a)   Define sophisticated user.

     (b)   Describe storage manager.

     (c)   What do you mean by Instance and Schema ?

     (d)   What is Atomicity ?

     (e)   What do you mean by Redundancy ?

(f)   Define BCNF.

(g)   Describe Aggregation.

(h)   Explain hashing.

(i)   What do you understand by the term normalization ?

(j)   Write short note on security and authorization.

UNIT-I

2.   Describe the difference between DBMS and file processing system.   [7]

3.   Draw the diagram of DBMS Architecture and describe it.   [7]

UNIT-II

4.   Write a query in both relational algebra and SQL, to select those emp from bank of branch "Lucknow University" who have both loans and saving account.   [7]

5.   Explain DDL, DML and DCL commands in detail.   [7]

UNIT-III

6.   Draw an ER Model of Banking system which shows generalization, specialization and aggregation.   [8]

7.   Discuss the working of B and B+ Trees with suitable examples.   [8]

UNIT-IV

8.   Write short notes on the following :   [8]

(a)   HOLAP

(b)   OLTP

(c)   OLAP

(d)   Data Marts

9.   (a)   Describe the 3-tier Data Warehouse Architecture.   [4]

(b)   What is Virtual Data Warehouse ?   [4]

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