

B.C.A. SEM-I (2014 COURSE) CBCS : WINTER - 2017
SUBJECT: DATABASE MANAGEMENT THEORY

Day : **Saturday** Time: **02.00 PM TO 05.00 PM**
Date : **11/11/2017** **W-2017-1603** Max. Marks: 100

N.B.:

- 1) Attempt **ANY FOUR** questions from Section – I and attempt **ANY TWO** questions from Section – II.
 - 2) Answers to both the sections should be written in **SEPARATE** answer books.
 - 3) Figures to the right indicate **FULL** marks.
-

SECTION – I

- Q.1** Explain CODD's rule for RDBMS. [15]
- Q.2** What is Deadlock? Explain Timestamp based Deadlock prevention. [15]
- Q.3** What are types of failures? Explain any one Log Based Recovery Technique. [15]
- Q.4** Explain with example different types of Attributes in Entity relationship diagram. [15]
- Q.5** Explain the role and responsibility of DBA. [15]
- Q.6** What is DBMS? Explain characteristics of DBMS. [15]
- Q.7** Write short notes on **ANY THREE** of the following: [15]
- a) Joins
 - b) Indexing and Hashing
 - c) Shadow paging
 - d) RAID

SECTION – II

- Q.8** Normalization following table upto 3NF: [20]
Scenario: Customers belong to a particular branch, this branch is supervised by a particular manager. Customers purchase stock. Each stock has a particular title and format.
CustomerID (Key), Name, Address, BranchNo, BranchManager, StockID, Title and Format.
- Q.9** Explain with how ER Model is converted to Relational Model. [20]
- Q.10** What is file organization? Explain in detail concept of file organization with example. [20]

* * * *