

M.C.A. Sem - I (Choice Based Credit System 2011 & 2012 Course) :
SUMMER - 2019
SUBJECT : Database Management Systems

Day : Monday
Date : 22/04/2019

Time : 02.00 PM TO 05.00 PM
Max. marks : 100

S-2019-2161

N.B.

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

SECTION - I

- Q.1** What is a DBMS? Explain its advantages over file system. **(15)**
- Q.2** Explain Hierarchical, Network and Relational Data models in detail. **(15)**
- Q.3** Explain Primary key, Foreign key, Candidate keys and Super keys with example. **(15)**
- Q.4** Explain the different types of file organizations. **(15)**
- Q.5** What is deadlock? How are deadlocks handled in database environment? **(15)**
- Q.6** Write short notes on the following: **(15)**
- a) States of Transaction
 - b) Role and Responsibilities of DBA
 - c) Hashing Techniques

SECTION - II

- Q.7** Draw an Entity Relationship Diagram for College Admission System. **(20)**
- Q.8** Normalize following data upto 3 NF. **(20)**
OrderNo., OrderDate, CustomerNo., CustomerName, ItemNo., ItemName, ItemUnitPrice, ItemQuantity, BillAmount.
- Q.9** Explain Basic Relational Algebra operators with example. **(20)**

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