

S. D. E.
M.C.A. Sem – I (CBCS - 2018 Course) : WINTER - 2018
SUBJECT: DATABASE MANAGEMENT SYSTEMS

Day: Friday
Date: 30/11/2018

Time: 10.00 AM TO 1.00 PM
Max. Marks: 70

W-2018-4788

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 the **SEPARATE** answer book.
- 3) Figures to the right indicate **FULL** marks.

SECTION-I

- Q.1** What is DBMS? List the advantages of DBMS over file system. (10)
- Q.2** What is a weak entity? How to model it? Explain with suitable example. (10)
- Q.3** Why normalization is needed? Explain the process of normalization. (10)
- Q.4** What is two phase-locking protocol? How does it guarantee serializability? (10)
- Q.5** What is indexing? Discuss about primary and secondary indexing. (10)
- Q.6** Write short notes on **ANY TWO** of the following: (10)
- a) Role and Responsibility of DBA
 - b) Data Quality Management
 - c) Deadlock

SECTION-II

- Q.7** Draw an Entity Relationship Diagram for Hostel Management System. (15)
- Q.8** What is Relational Algebra? Enlist and Explain the fundamental operations of relational algebra. (15)
- Q.9** Write short on: (15)
- a) Transparency and Replication in Distributed Database
 - b) Data Marts

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