Subject : Database Design

Day : Saturday   **S.D.E.** ||||||||||||||||||||| Time : 10.00 AM TO 1.00 PM
Date : 10/12/2016   **33271**   Max Marks : 80   Total Pages : 1

N.B.;
1) Attempt **ANY FIVE** questions from Section – **I** and **ANY TWO** questions from Section – **II**.
2) Answer to both the sections should be written in **SAME** answer book.
3) Draw neat diagram and give illustrations **WHEREVER** necessary.

SECTION - I

Q.1 Define database. Explain database languages in detail. **(10)**

Q.2 Discuss Codd's rules. **(10)**

Q.3 What is normalization? Explain 1NF and 2NF with example. **(10)**

Q.4 What are the advantages of DBMS over file processing system? **(10)**

Q.5 Briefly state two phase locking mechanism in concurrency control. **(10)**

Q.6 Draw and explain architecture for a distributed database system. **(10)**

Q.7 What do you mean by database recovery? Explain Log based Recovery **(10)** Mechanism in detail.

SECTION - II

Q.8 Design an ER diagram for Banking System. Clearly indicate the entities, **(15)** attributes and relationships and the key constraints.

Q.9 What is Object Oriented database management system? Explain its **(15)** advantages in detail.

Q.10 Write short notes: **(15)**

a) Data abstraction

b) Relational Database Model

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