CLASS: BE   SEMESTER: VII
BRANCH: EEE   SESSION : MO/2018

SUBJECT : CS4205 DATABASE MANAGEMENT SYSTEM

TIME: 1.5 HOURS   FULL MARKS: 25

INSTRUCTIONS:
1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

Q1 (a) Discuss the main characteristics of database approach and how it differs from traditional   [3]
         file systems.
    (b) Explain the functions of a Database Administrator (DBA).   [2]

Q2 (a) Briefly discuss the Database Models.   [2]
    (b) Construct an E-R diagram for a Car Insurance Company with a set of customers, each of   [3]
         which owns a number of cars. Each car has number of recorded accident associated with
         it. Illustrate all the essential features.

Q3 (a) Explain the concepts of Generalization & Specialization with appropriate examples.   [3]
    (b) What is Aggregation? Explain.   [2]

Q4 (a) Explain any three Relational Algebraic Operators.   [3]
    (b) Briefly discuss the Integrity rules of a Relational Database Model.   [2]

Q5 (a) Define the following: Primary Key, Candidate Key and Alternate Key.   [3]
    (b) Briefly explain the DDL and DML functions.   [2]

Q6   Consider the following relations and write the SQL expressions equivalent to the following   [5]
         queries:
         BRANCH (Branch_Name, Branch_City, Assets)
         CUSTOMER (Customer_Name, Customer_Street, Customer_City)
         ACCOUNT (Account_No., Branch_Name, Balance)
         LOAN (Loan_No., Branch_Name, Amount)
         BORROWER (Customer_Name, Loan_No.)
         DEPOSITOR (Customer_Name, Account_No.)
         i) Find the names of all customers, who live in "DELHI".
         ii) Find the names of all customers, who have a loan at the "DELHI" branch.
         iii) Find the names of all customers, who have either a loan or an account at the bank.

:::::: 12/09/2018 ::::::M