Code: EE6T6FE-G, EC6T6FE-G

**III B.Tech-II Semester–Regular/Supplementary Examinations
March 2020**

**DATABASE MANAGEMENT SYSTEMS**
**(COMMON FOR ECE, EEE)**

Duration: 3 hours                                    Max. Marks: 70

PART – A

Answer *all* the questions.   All questions carry equal marks

11 x 2=22 M

1.

   a) Distinguish between database schema and database instance.

   b) Define view.

   c) What is an ER diagram?

   d) What is Normalization?

   e) List out the properties of a transaction.

   f) What are the responsibilities of a DBA?

   g) What is the role of a constraint in DBMS?

   h) What are the types of weak-entities?

   i) Discuss the concept of Primary key and Candidate Key.

   j) Define the term Concurrency Control.

   k) Discuss the concept of joins.

# PART – B

Answer any ***THREE*** questions.   All questions carry equal marks.

3 x 16 = 48 M

2. a) What is the difference between file system and a DBMS?

8 M

b) What are the advantages of DBMS?                 8 M

3. a) When do you use Nested Queries?  Explain with
   example.                                         8 M

b) What is relational model? How the data and relationships
   are represented in tables in relational models?    8 M

4. a) Outline the steps to convert the basic ER model to
   relational Database Schema.                        8 M

b) Draw an ER-diagram of a Bus reservation system, taking
   into account at least four entities. Indicate all keys,
   constraints and assumptions that are made.         8 M

5. a) What is normalization? Explain 1NF and 2NF.      8 M

b) Normalize following relation up to 3NF: Bank(acno,
   cust_name, ac_type, bal, int_rate, cust_city, branchId,
   branch_nm, br_city).                               8 M

6. a) What is need of lock in DBMS? Explain shared lock and
   exclusive lock with the help of example.           8 M

b) Why Concurrency control is needed? Demonstrate with
   an example.                                        8 M