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Forth SEM

Roll No: DTU/2015/10/049
B.TECH(IT/CO)

END SEM EXAMINATION

May 2017

CO/IT-202 DATABASE MANAGEMENT SYSTEM

Time: 3 hr

Max. Marks : 70

Note : Answer any five
Assume suitable missing data, if any.

- Q1. (a) Explain the role and responsibility a database administrator? 8
(b) Describe the architecture and various component of database system? 8
- Q2. (a) Draw ER diagram for the hospital information system, 8
(b) Explain Log based recovery scheme deferred database modification approach 8
- Q3. (a) Explain the following Integrity rules of relational model : 8
(i) Entity integrity
(ii) Referential integrity
(b) Differentiate the following : 8
(i) DDL and DML (ii) Weak entity set and strong entity set
- Q4. (a) Explain the time stamp ordering protocol. Is it better than 2P locking protocol? 8
(b) Define the following: 8
(i) Fully function dependency
(ii) Multivalued dependency
(iii) Trivial dependency. 8

Q5 (a) Write the SQL queries for the relation

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Books(title,author,book_id,year_publication)

- (i) Books whose author name starts with 'M' but does not end with 'M'.
- (ii) Book with the second largest year of publication.
- (iii) Books published between 1990-2000 but not in year 1990 and 2000

(b) Define a trigger that inserts a row in a books_duplicate table(with the same schema as Books) whenever a delete is performed over Books relation.

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