AC-1730
B. Sc. (I. T.) (Sem. - IV) Examination
March/April – 2015
RDBMS -I

Time : 3 Hours] [Total Marks : 70

Instruction :

1. Answer the following questions in brief (Any Six) 18
   (1) What is aggregation? How to represent aggregation in ER diagram?
   (2) Explain the IN and NOT IN clause used in sub query with example.
   (3) How to join a table to itself?
   (4) Identify super key, candidate key and primary key for this relation.
       Employee (EmpID, EmpName, PANCard, EmailID, Department, EmpSalary,EmpLoanNumber, BloodGroup).
   (5) What is TCL? What commands are required to undo the transactions?
   (6) Explain any 6 rules of RDBMS of Codd.
   (7) Explain the use of exists clause with example.

2. Attempt any THREE questions : 18
   (1) How normalization helps in removing various anomalies and inconsistencies present in the relation? Which normal form is required for all the relations? Explain with example.
   (2) Create the ER diagram with only 6 entities of a website for searching facility of trip between different cities. The customer can make the advance booking and payment of selected trip and locations.

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(3) How to join different tables? What is the difference between equi join and non-equi join? Take example of any 2 tables.

(4) How functional dependency helps in creating consistent relations? Explain the armstrong's axioms for functional dependency with example.

3 Answer the following questions: (Any Six)

(1) The composite primary key always results in partial functional dependency in a relation. Justify this statement.

(2) Give the difference between unique key and primary key.

(3) How to add the foreign key in already existing table?

(4) Explain the cause and solution for the error "parent key not found" and "unique constraint violated"?

(5) Explain multi valued dependency.

(6) How to take the role and permissions back from the user?

(7) NULL value is not same as the 0 and null string? Explain with example.

4 Answer the following questions:

(A) There is a relation with field's related to student and book data.

Stud_book table (smo,sname,sem,city, bookno, bookname, author, price,issue_date, Issue, Return)

Create the required tables with proper constraints.

Solve the following queries (Assume that required records are present in the tables).

(1) List the student detail who have returned the book of 'javascript'.

(2) Find the book detail which has been issued at least once

(3) Retrieve the records of the surat city students with book of the author 'balaguru'.

(B) What is canonical cover of functional dependencies?

How to compute the canonical cover?

OR

(B) What is data dictionary? Create one sample data dictionary for 2 tables of online shopping system.