



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

Time : 3 Hours]

[Total Marks : 70

Instruction :

<p>नीचे दृशावेक निशानीवाणी विगतो उत्तरवडी पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination :</p> <p>← B. SC. (I. T.) (SEM. - IV)</p> <p>Name of the Subject :</p> <p>← RDBMS - I</p> <p>← Subject Code No. : 1 7 3 0 ← Section No. (1, 2,.....): Nil</p>	<p>Seat No. :</p> <table border="1" style="width: 100%; height: 20px;"><tr><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td><td style="width: 15%;"></td></tr></table> <div style="border: 1px solid black; border-radius: 15px; height: 60px; display: flex; align-items: center; justify-content: center; margin-top: 10px;">Student's Signature</div>						

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.

- (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)** **18**

- (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 : **16**

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

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

Create the required tables with proper constraints. **5**

Solve the following queries (Assume that required records are present in the tables). **6**

- (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? **5**
How to compute the canonical cover?

OR

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