BCA

(Please write your Exam Roll No.)

# END TERM EXAMINATION

## SECOND SEMESTER [BCA] MAY-JUNE 2012

| Paper Code: BCA110 | Subject: Data Base Management System |
| --- | --- |
| | (Batch: 2011) |
| Time : 3 Hours | Maximum Marks :75 |

Note: Attempt all questions. Q.no.1 is compulsory. Internal choice is indicated.

Q1    (a) What is the purpose of the intention mode locking scheme?    (2.5x10=25)
(b) What are the various transaction states?
(c) Explain the terms 'multi-valued dependency' with the help of an example.
(d) Explain the terms 'join dependency' with the help of an example.
(e) Why is embedded SQL used?
(f) Describe an application that needs embedded language.
(g) What is content of Data Dictionary?
(h) What is Integrity and Trigger?
(i) What is Distributed Queries?
(j) What is Two Phase Commit Protocol?

Q2    A department store consists of many item sections. A section is in charge. The store has three kinds of employees accounts and billing, administrators, section maintainers. A request for purchase of items for the store is initiated by accounts and billing department which has the inventory details. Purchases are made by administration with proper quality checks from specified vendors. The section maintainers update the inventory placed at shelf's. Draw the E-R diagram for the store specifying aggregation, generalization or specialization hierarchy, if any.    (12.5)

OR

Consider the following relational database:
EMPLOYEE (emp-name, street, city)
WORKS (emp-name, comp-name, salary)
COMPANY (com-name, city)
MANAGES (emp-name, manager name)
For each of the following queries, give the relational algebraic expression and relational calculus expression.
(a) Find the names of all the employees who work for XYZ Bank Corporation.
(b) Find the names of those employees who earn more than every employee of the XYZ Bank Corporation.
(c) Find the names of managers who work in a bank located in Delhi.

Q3    What is a host language? Why is it needed? What is the purpose of dynamic embedded SQL? Explain with the help of an example.    (12.5)

OR

"Practically, one must decompose the tables only till 3NF as it is loss less, dependency preserving decomposition". Comment on the above statement. Give example in support of your answer. How is 3NF different from BCNF?

Q4    A bank has a client-server database for account withdrawal. What are the concurrency related problems that may occur? How can these problems be resolved?    (12.5)

OR

What is checkpoint? Why is it needed? What are the actions which are taken by DBMS at a checkpoint? Explain with the help of an example.

Q5    Explain the insert, update and delete statement of SQL with example.    (12.5)

OR

Explain the selection and projection clauses in Relational algebra and relational calculus.

Q6    how can views be used in implementing concepts of data independence? Explain.    (12.5)

OR

Why is embedded SQL used? Describe an application that need embedded language.
***********

/4.

# Similar Papers

BCA 2nd sem Database Management System paper 2018

BCA 2nd sem Database Management System paper 2014

Database Management System Papers

BCA 2nd sem Database Management System paper 2015

BCA 2nd sem Database Management System paper 2013