2018

BCA 3rd Semester Examination

DBMS LAB.

PAPER—2196 (Set-II)

(Practical)

Full Marks : 100

Time : 3 Hours

The figures in the right-hand margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any *two* questions (Lottery Basis). 2×25

1. A book dealer maintain the following database :

   AUTHOR (author_id, name, city, country)
   CATALOG (book_id, title, author_id, publisher_id, category_id, year, price)
   PUBLISHER (publisher_id, name, city, country)
   CATEGORY (category_id, description)
   ORDER_DETAILS (order_no, book_id, quantity)

   (a) Create the above tables with properly specifying primary key and foreign key.
   (b) Enter at least 5 records to each table.
   (c) Display the details of the authors who have two or more books in the catalog and publishing year is after 2000.
   (d) Find the author of the book that has maximum sales.
   (e) Demonstrate how you increase the price of books published by a specific publisher by 10%.

2. Consider the following database for a book :

   BRANCH (branch_name, branch_city, asset)
   ACCOUNT (accno, branch_name, balance)
   DEPOSITOR (customer_name, acc no)
   CUSTOMER (customer_name, customer_street, customer_city)
   LOAN (loan_number, branch_name, amount)
   BORROWER (customer_name, loan_number)

   (a) Create the above tables by properly specifying primary key and foreign key.
   (b) Enter atleast five records in each table.
   (c) Find the customer who have atleast two accounts.
   (d) Find all the customer who have an accounts at all the branches located in a specific city.
   (e) Demonstrate how you delete all account records at every branch located in a specific city.

3. Consider the following database of student enrolment in courses and books adopted for that course :

STUDENT (regno, name, major, bdate)
COURSE (courseno, cname, dept)
ENROLL (regno, courseno, sem, mark)
BOOK-ADOPTION (courseno, sem, book_isbn)
TEXT (book_isbn, book_title, publisher, author)

(a) Create the above tables by properly specifying the primary key and foreign key.

(b) Enter atleast five records for each relation.

(c) Demonstrate how you add new text books.

(d) Display the list of text books (includes courseno, book_isbn, book_title) in the alphabetical order for courses offered by the 'CS' department that use more than two books.

(e) List any depart that has all its books published by a specific publisher.

4. Consider the following relations for a order processing database in a company :

CUSTOMER (custno, cname, city)
ORDER (orderno, odate, custno, ord_amt)
ORDER_ITEM (orderno, itemno, quantity)
ITEM (itemno, unitprice)
SHIPMENT (orderno, warehouseno, ship_date)
WARE_HOUSE (warehouseno, city)

(a) Create the above tables by properly specifying the primary key and foreign key.

(b) Enter atleast five records in each table.

(c) Display a listing : (custname, No_of_orders) where the second column is the total number of orders.

(d) List the orderno of orders that were shipped from all the warehouse in a specific city.

(e) Demonstrate deletion of an item from item table.

5. Consider the tables for an organization :

CUSTOMER (cust_id, cust_name)
ITEM (item_id, item_name, price)
SALE (bill_no, bill_date, cust_id, item_id, qty_sold)

(a) Create the above mentioned table with specifying properly primary key and foreign key.

(b) Insert atleast five records for each table.

(c) Display the list specifying details of customer who have bought product which has a price > 200.

(d) Find the total bill details with the quantity sold, price of the item and the final amount.

(e) Give a count of how many product have been bought by each customer.

6. Consider the following tables :

EMPLOYEE (emp_id, emp_name)
DEPARTMENT (dept_id, dept_name)
PAYDETAILS (emp_id, dept_id, basic, deduction, additions, doj)
PAYROLL (emp_id, pay_date)

(a) Create the tables with specifying primary key and foreign key.

(b) Insert atleast five records in each of the table.

(c) List the employee details departmentwise.

(d) List all the employee who joined after a specific date.

(e) Give the names of employee whose basic > 5000.

7. Consider the following tables :

SAILOR (sid, sname, rating, age)
BOATS (bid, bname, colour)
RESERVES (sid, bid, day)

(a) Create the above tables by properly specifying primary key and foreign keys.

(b) Enter atleast five records for each tables.

(c) List the sailors who have reserved for both 'RED' and 'GREEN' boats.

(d) List the sailors in the decending order of their rating.

(e) List the details of the oldest sailor for each rating level.

8. Consider the following databases :

CUSTOMER (custno, custname, city, ph_no)
ITEM (itemno, itemname, itemprice, quantity)
INVOICE (invno, invdate, custno)
INVITEM (invno, itemno, quantity)

(a) Create the above mentioned table by properly specifying primary key and foreign key.

(b) Insert atleast 5 records for each table.

(c) Display all the item name along with quantity sold.

(d) Find the customer name who are not from "Kolkata".

(e) Display the customer name who bought maximum quantity of any specific item.

9. Consider the following company database :

EMPLOYEE (eno, name, dob, doj, designation, basicpay, deptno)
DEPARTMENT (deptno, name)
PROJECT (projno, name, deptno)
WORKSFOR (eno, projno, hours)

(a) Create the above mentioned tables by properly specifying primary keys and foreign keys.

(b) Insert atleast five records for each table.

(c) List the department no. and number of employees in each department.

(d) List the details of employee who worked in more than three projects.

(e) Find the name of department which is engaged in maximum number of projects.

10. Consider the following tables for a bus reservation system :

BUS (routno, source, destination)
PASSENGER (pid, pname, dob, gender)
BOOK_TICKET (pid, routno, journey-date, seat_no)

(a) Create the above mentioned table by properly specifying primary key and foreign key.

(b) Insert atleast three records for each table.

(c) Display the passenger who had booked the journey from Kolkata to Medinipur on 03 Nov 2018.

(d) List the details of passenger who traveled more than three times on the same route.

(e) Include constraint that DOB of passenger should be before 2008.

Viva — 15

P.N.B. — 05

Internal Assessment — 30