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(4th Semester)

BACHELOR OF COMPUTER APPLICATIONS

Paper No. : BCA–402 P

(Oracle Laboratory)

(Practical)

Full Marks : 75

Time : 3 hours

The figures in the margin indicate full marks
for the questions

1. Consider the insurance database given below. The primary keys are underlined and the data types are specified :

PERSON (driver_id : string, name : string, address : string)
CAR (Regno : string, model : string, year : int)
ACCIDENT (report_number : int, date : date, location : string)
OWNS (driver_id : string, regno : string)
PARTICIPATED (driver_id : string, regno : string, report_number : int, damage_amount : int)

   (a) Create the above tables by properly specifying the primary keys and the foreign keys.   4

   (b) Enter at least five tuples for each relation.   4

(**2**)

   (c) Demonstrate the following :   6

     (i) Update the damage amount for the car with a specific regno in accident with report number 12 to 25000

     (ii) Add a new accident to the database

   (d) Find the total number of people who owned cars that were involved in accidents in 2002.   3

   (e) Find the number of accidents in which cars belonging to a specific model were involved.   3

   (f) Create a VIEW called OWNERSHIP that will show the following :   5

   Driver name, address, registration and location

OR

2. Consider the following relations for an order processing database applications in a company :

CUSTOMER (cust : int, cname : string, city : string)
ORDER (order : int, odate : date, cust : int, ord_amt : int)
ORDER_ITEM (order : int, item : int, qty : int)
ITEM (item : int, unitprice : int)
SHIPMENT (order : int, warehouse : int, ship_date : date)
WAREHOUSE (warehouse : int, city : string)

   (a) Create the above tables by properly specifying the primary keys and the foreign keys.   4

(b) Enter at least five tuples for each relation.   4

(c) Produce a listing : CUSTNAME, # of orders, AVG_ORDER_AMT, where the middle column is the total number of orders by the customers and the last column is the average order amount for that customer.   4

(d) List the order # for orders that were shipped from all warehouses that the company has in a specified city.   4

(e) Demonstrate how you delete item # 10 from ITEM table and make the field null in the ORDER_ITEM table.   4

(f) Create a VIEW called BIG ORDER which shows all orders larger than 2000.   5

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

STUDENT (regno : string, name : string, major : string, bdate : date)
COURSE (course : int, cname : string, dept :string)
ENROLL (regno : string, course : int, marks : int)
BOOK_ADOPTION (course : int, sem : int, book_ISBN : int)
TEXT (book_ISBN : int, book_title : string, publisher : string, author : string)

(a) Create the above tables by properly specifying the primary keys and foreign keys.   4

(b) Enter five tuples for each relation.   4

(c) Produce a list of textbooks in alphabetical order for courses offered by BCA department that uses more than twobooks.   4

(d) List any department that has all its adopted books published by a specific publisher.   4

(e) List out student marks in ascending order.   4

(f) Create a view Black Market that gives the count of number of publishers.   5

OR

4. Consider the following database for a banking enterprise :

BRANCH (branch_name : string, branch_city : string, asset : real)
ACCOUNT (accno : int, branch_name : string, balance : real)
DEPOSITOR (customer_name : string, accno : int)
CUSTOMER (customer_name : string, customer_street : string, city : string)
LOAN (loan_number : int, branch_name : string, loan_number : int)
BORROWER (customer_name : string, customer_street : string, city : string)

(a) Create the above tables by properly specifying the primary and foreign keys.   4

(b) Enter five tuples for each relation.   4

(c) Find all the customers who have at least two accounts at the main branch.   4

(d) Find all the customers who have an account at all the branches located in a specified city.   4

(**5**)

(e) Find the lowest and the highest balance in account table.   5

(f) Create a VIEW called Personal Loan that shows customer name, account number and loan.   4

5. Viva voce.   15

6. Record book.   10

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