BCA/IIIS/DBMS/2196/19 (Pr.)
(Set-1)

BCA 3rd Semester Examination, 2019

DBMS LAB

(Practical)

PAPER—2196

Full Marks : 100

Time : 3 hours

The figures in the right-hand margin indicate marks

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

Illustrate the answers wherever necessary

[SET-1]

Answer any **one** question : 50 × 1

1. Consider the following relational database :

   Book(Acc_no, Title, Publisher, no_of_copy, Category) .

Borrower(Card_no, B_Name, B_address)

Issue(Acc_no, Card_no, Date_of_issue, Date_of_return)

Write SQL query for the following :

(*a*) Implement the above database in SQL.

(*b*) Find total number of "computer science" category book.

(*c*) How many students are currently taken the book namely "Fundamental of Database Systems".

(*d*) Show the list of books of publisher "Pearson".

(*e*) Find the names of books having less than 5 copies.

2. Consider the following relational database :

Hotel(H_no, H_name, H_address)

Room(R_no, H_no, Type, Charge)

Booking(H_no,G_no,R_no,Date_from, Date_to)

Guest(G_no, G_name, G_address)

Write SQL query for the following :

(*a*) Implement the above database in SQL.

(*b*) Find numbers guests at "Hotel Taj";

(*c*) Find numbers of "Deluxe" type room at "Hotel Taj";

(*d*) Find names of Guests who were at room number 5 of "Hotel Taj" on 25th April, 2018.

(*e*) Find names of hotels having more than total 50 rooms.

3. Consider the following relational database :

Supplier (S#, Sname, city, status)
Parts (P#, Pname, colour, weight)
SP (S#, P#, quantity)

Write SQL query for the following :

(*a*) Implement the above database in SQL.

(*b*) Find names of suppliers located at same place and supply same parts.

(*c*) Find names of suppliers who currently do not supplying any items.

(*d*) Find the total number of suppliers.

(*e*) Find total number of parts irrespective of its colour.

4. Consider the following relational database :

Student (Name, Roll, Addr, Ph_no, Email, Subject, Standard)

Teacher (Name, Id, Subject, Experience)

Write SQL query for the following :

(*a*) Implement the above database in SQL.

(*b*) Find the total number of students for each standard.

(*c*) Find names of the teachers who belong to "Computer Science" having more than 5 years experienced.

(*d*) Find ratio of teacher and student.

(*e*) Find name of the most senior teacher.

5. Consider the following relational database :

Employee(e_id,e_name,salary,address, hiredate)
Manages (e_id, Manager_id)

Write SQL query for the following :

(*a*) Implement the above database in SQL.

(*b*) Find the difference between maximum and minimum salaries of employees.

(*c*) Find names of employees who are less than 5 years in company.

(*d*) Find names of employees who got higher salary than that of their managers.

(*e*) Find names of employees who joined within last one year.

6. Database :

Examination (Eid, Ename, Edate, Duration, Fees, Co-ordinator_name)

Write SQL query for the following :

(*a*) Implement the above database in SQL.

(*b*) Find total number of examinations held in January, 2018.

(*c*) Find names of examinations which are under the same co-ordinator as "Physics" examination.

(*d*) Find the name of examination having minimum fees.

(*e*) Find total numbers of co-ordinators of examinations.

7. Consider the following relational database :

Doctor (Did, Dname, Dept_name, Joining_date, Salary, Sisignation)

Patient (Pid, Did, Pname, P_addr, ph_no, admitted _dept_name)

Write SQL query for the following :

(*a*) Implement the above database in SQL.

(*b*) Find the name of patients who have admitted under "Dr. A. Roy".

(*c*) Find name of the doctor who has maximum number of patients of Neurology department.

(*d*) List the names of doctors according to alphabetical order in orthopaedic department.

(*e*) Find name of the highest paid doctor in pathology department.

8. Write a PL/SQL program to find maximum salary from EMP table and save the value into a variable 'sal' and display the value of 'sal'.

9. Write a PL/SQL program to find average salary from EMP table. If EMP table is not available; display appropriate message else print the average salary of employees.

10. Write a PL/SQL procedure/function for getting two numbers from key board and applying following one operation based on user's choice :

(*a*) Addition

(*b*) Subtraction

(*c*) Multiplication

(*d*) Division.

Viva Voce – 15 marks

PNB – 05 Marks

Internal Assessment – 30 marks

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(Set-2)

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DBMS LAB

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PAPER – 2196

Full Marks : 100

Time : 3 hours

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[SET–2]

Answer any **one** questions : 50 × 1

1. Consider the following relational database :

Patient (p_id, p_name, p_age, p_address)
Doctor (d_id, d_name, d_add)
Attend (d_id, p_id)
Admitted (p_id, p_date_of_admission)

Write SQL query for the following :

(*a*) Create the above database using SQL.

(*b*) Find total number of patients admitted last two days.

(*c*) Find name of the doctor who has highest number of patients.

(*d*) Find name of the patient who lives at the same place as his/her doctor.

(*e*) Find number of patients having age more than 50.

2. Consider the following database consisting of the following tables :

Hostel (hno, hname, type [boys/girls'])
Menu (hno, day, breakfast, lunch, dinner)
Warden (wname, qual, hno)
Student (sid, sname, gender, year, hno)

(*a*) Create the above database using SQL.

(*b*) Display the total number of hostels in the college.

(*c*) Display the menu in the hostel 'x' on Tuesday.

(*d*) Display the number of students and wardens for each hostel.

(*e*) Find the capacity (in term of no. of students) of each hostel

(*f*) Find the name of girl hostel which has lowest capacity.

3. Relation schema :

Employee (Employee_no., Employee_name, designation, Salary, Hiredate, Department_no, Manager_name)

Department (Dnumber, Dname, Location)

(*a*) Create the above database using SQL.

(*b*) If all employees draw commission 60% of their salaries, then display names of the employees with their total salaries.

(*c*) Find the names of any one in dept. 20 who is neither manager nor clerk.

(*d*) Find name of the employees who draw salaries more than the average salary of all employees.

(*e*) Find all the employees who were hired more than 2 years ago.

(*f*) List the employee names, department names and salary for those employees who have completed 1 year of service.

4. Create the following tables with the mapping given below :

(*i*) Customer (Cust_id, Cust_name, Addr, ph_no, pan_no)

(*ii*) Loan (Loan_id, Amount, Interest, Cust_id)

(*a*) Create the above database using SQL.

(*b*) Display the Cust_name having both Loan and Account.

(*c*) Display number of Loans, the sum of Loan Amount of a Particular Custname ("LEENA")

(*d*) Display the Custname doesn't hold any Account nor taken any Loan

(*e*) Add a column no.1(number of loans)

5. Write a PL/SQL program to find smallest and highest of three input numbers.

6. Write a PL/SQL program to insert three rows to an existing tables.

7. Write a PL/SQL program to update sal column by increasing 5% for all employees of EMP table.

8. Consider the following relational schema :

CUSTOMER (cID, cName, Age, Gender)
FLIGHTINFO (fNo, from city, to city, start time, duration)
ON FLIGHT (cID, fNo, f date)

(*a*) Create the above three tables and insert few records into those tables

(*b*) Show the name of customer's who never avail any flight.

(*c*) Show the name of customers who flew with Mr. Das.

(*d*) Find the total number of flights start from Kolkata.

(*e*) Add one attribute of your choice to the FLIGHTINFO table.

9. Borrower (Customer_name, Loan_ID)
Depositor (Customer_name, Account_no)
Customer (Customer_name, street, city)
Loan (Loan_ID, branch_name, City, amount)

(*a*) Create all the above specified tables and insert few suitable records.

(*b*) Find the names of customers who have loan as well as account.

(*c*) Find the name of customer who have only loan.

(*d*) Find the name of customer having loan in 'Medinipur' branch

(*e*) Find the total number of customer who have atleast one loan.

10. Consider the following tables :

Sailors (Sid, Sname, rating, age)
Boats (Bid, Bname, Color)
Reserves (Sid, Bid, day)

(*a*) Find the names of Sailors who have reserved boat number 105.

(*b*) Find all the Sid of all Sailors who have reserved only red boat.

(*c*) For each green boat, find the number of reservation of each boat.

(*d*) Find the sailors with highest rating.

Viva Voce – 15 Marks

PNB – 05 Marks

[*Internal Assessment* – 30 Marks]
