NEW

Part–III 3-Tier

2019

COMPUTER SCIENCE

PAPER—VII (SET—I)

(Honours)

(PRACTICAL)

Full Marks : 50

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.

Unit—II

Answer any *two* questions (lottery basis). 2×20

1. Consider the following database :

Emp (empno, ename, job, mgr, hiredate, sal, comm, deptno)
Dept (deptno, dname, loc)
Salgrade (losal, hisal, grade)

(a) Create the tables and insert sufficient records. Every employee must get salary more than 5,000/-.

(b) Find all employees who have joined the company before their manager.

(c) Find out the employees who earned a salary less than the average salary of their job.

(d) Find out the employees who are first to join their departments.

(e) Write down a query to display two lowest earners name and salary.

2. Consider the following database :

sup (S#, SNAME, status, city)
project (J#, Jname, city)
part (p#, pname, color, weight, city)
SSPPJJ (S#, P#, J#, QTY)

(a) Create the tables and insert sufficient records. S# should start with 'S', J# with 'J' and p# with 'P'.

(b) Get the supplier name for suppliers who supply at least one red part.

(c) Get the supplier name for suppliers who supply all parts.

(d) Get supplier number for suppliers who supply at least all those parts supplied by supplier 'S2'.

(e) Get all pairs of supplier number such that two suppliers concerned are colocated.

3. Consider the following schema of a Relational Database :

Flights (flno, from, to, distance, departs, arrives)
Aircraft (aid, aname, cruise_range)
Certified (eid, aid)
Employees (eid, ename, salary)

(a) Create the tables and mention the foreign keys. 'flno' should start with 'F'.

(b) Find the total amount paid to employees as salaries.

(c) Find the eids of pilots certified for some Boeing aircraft.

(d) Find the eids of employees who are certified for exactly three aircrafts.

(e) Find the aids of all aircrafts that can be used on non-stop flights from Kolkata to Berlin.

4. Consider the following schema of a Relational Database :

Branch (bno, street, city, pin)
Staff (staff_no, fname, lname, designation, sex, dob, bno)
Property_for_Rent (pno, street, city, pin, type, rooms, rent, owner_no, staff_no, bno)
Client (cno, fname, lname, telno, pref_type, max_rent)
Private_owner (ono, fname, lname, address, telno)
Viewing (cno, pno, view_date, comment)

(a) Create the tables and insert sufficient records. Indentify the foreign keys.

(b) Find a list of all cities where there is a branch office but no properties.

(c) Find all owners who do not have the string 'New Town' in their address.

(d) Find the number of staff working in each branch and the sum of their salaries.

(e) Find a list of all cities where there is both a branch office and a property.

5. Consider the following schema of a Relational Database :

person (driver_id, name, address)
car (license, model, year)
accident (report_number, date, location)
owns (driver_id, license)
participated (driver_id, car, report_number, damage_amount)

(a) Create the tables and insert sufficient records. 'driver_id' should start with 'D'.

(b) Update model whose report_number is 'AACC4000'.

(c) Find the total number of people who owned cars that were involved in accidents in 1989.

(d) Add a new accident to the database ; assume any values for required attributes.

(e) Delete the Mazda belonging to 'John Smith'.

Viva Voce : 5

Practical Note Book : 5
