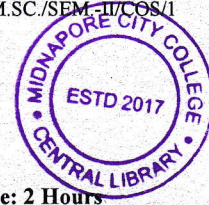


PG CBCS
M.SC. Semester-II Examination, 2022
COMPUTER SCIENCE
PAPER: COS-291
(DBMS Lab)



Full Marks: 40

Time: 2 Hours

Answer any ONE question: (Lottery Basis)**1 X 35 = 35**

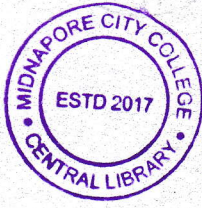
1. Consider the tables and Perform the following :
SAILOR(S_id,S_Name,S_rating,S_age), BOAT(B_id,B_Name,color,S_id),
RESERVE(S_id,B_id,hire_date)
 - a) Find the information of sailor who have reserve boat no 101
 - b) Find the name of boat reserve by sailor name 'AKASH'
 - c) Find the sailor name who have reserve a red boat and list them in ascending order of age.
 - d) Find the name of Sailor who have reserve at least one boat.
 - e) Find the name of sailor who have reserve two different boat on the same date.
 - f) Find the id of sailor who have reserve a red boat or green boat.
 - g) Find the name and age of the youngest sailor.
 - h) Find the average age of the sailor for each rating level.
 - i) Find the average age of each rating level that has at least two sailor.
 - j) Count the no of boats use by sailor name 'Mili'

2. Create a table EMPLOYEE with following schema: (Emp_no, E_name, E_address, E_ph_no, Dept_no, Dept_name, Job_id , Salary) Add a new column; HIREDATE to the existing relation.
 - a) Change the datatype of JOB_ID from char to varchar2.
 - b) Change the name of column/field Emp_no to E_no.
 - c) Modify the column width of the job field of emp table.
 - d) Delete the email_id of employee James.
 - e) Display the record of each employee who works in department D10.
 - f) Update the city of Emp_no-12 with current city as Nagpur.
 - g) Display the details of Employee who works in department MECH.
 - h) Delete the email_id of employee James.
 - i) Display the complete record of employees working in SALES Department.

3. Consider the following schema for a LibraryDatabase:
BOOK (Book_id, Title, Publisher_Name, Pub_Year)
BOOK_AUTHORS (Book_id, Author_Name)
PUBLISHER (Name, Address, Phone)
BOOK_COPIES (Book_id, Branch_id, No-of_Copies)
BOOK_LENDING (Book_id, Branch_id, Card_No, Date_Out, Due_Date)
LIBRARY_BRANCH (Branch_id, Branch_Name, Address)

(P.T.O.)

(2)



- a) Retrieve details of all books in the library – id, title, name of publisher, authors, number of copies in each branch, etc.
- b) Get the particulars of borrowers who have borrowed more than 3 books, but from Jan 2017 to Jun 2017
- c) Delete a book in BOOK table. Update the contents of other tables to reflect this data manipulation operation.
- d) Partition the BOOK table based on year of publication. Demonstrate its working with a simple query.
- e) Create a view of all books and its number of copies that are currently available in the Library.

4. Consider the following schema for Order Database:

SALESMAN (Salesman_id, Name, City, Commission)

CUSTOMER (Customer_id, Cust_Name, City, Grade, Salesman_id)

ORDERS (Ord_No, Purchase_Amt, Ord_Date, Customer_id, Salesman_id)

- a) Count the customers with grades above Bangalore's average.
- b) Find the name and numbers of all salesmen who had more than one customer.
- c) List all salesmen and indicate those who have and don't have customers in their cities (Use UNION operation.)
- d) Create a view that finds the salesman who has the customer with the highest order of a day.
- e) Demonstrate the DELETE operation by removing salesman with id 1000. All his orders must also be deleted.

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

Employee (ssn, first name, last name, gender, designation, date_of_joining, address)

Employee-salary (ssn, basic pay, DA, TA, pay)

Department (did, dname, mgrssn)

Employee-department (ssn, deptid)

Employee-dependency (ssn, depname, depgender, deprrelationship)

- a. Create the above database using SQL.
- b. Retrieve the doj, address of employees who work for "Research" department
- c. For each employee, retrieve the employee's first name and last name
- d. Retrieve the names of each employee who has a dependency with same first name and gender of that employee.
- e. Find name of the highest paid male employee.

(P.T.O.)

(3)



6. 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)
- Create the above database using SQL.
 - List the names of patients with their doctor.
 - Find the names of the doctors who attend more than three patients.
 - Find name of the patient who lives at the same place as his/her doctor.
 - Find name of the patient who are admitted before other.
 - Count total number of patients and total number of doctors.

7. Create the tables described below with the constraints/attributes specified
 Table Name: **EMP1_XX (XX=>Last two digits of your class roll number)**
 Description: Used to store employee information

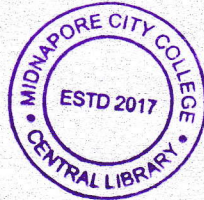
Column Name	Data Type	Size	Constraints/Attributes
Empno	Number	4	Primary Key, values between 7000 and 7999
Ename	Varchar2	20	Not null, Name must be in Upper case
Deptno	Number	2	Two digit number
Job	Varchar2	15	Not null
Mgr	Number	4	Foreign key references Empno of EMP1_XX, Values between 7000 and 7999
HireDate	Date		Not null
Salary	Number	5	Default 0

- Display all the different job types.
 - Display all employees who were hired during 1983
 - Find highest salaried employee.
8. Consider the following database consisting of the following tables:
- Inventory (item, level, cost)
 Minlevel (item, level)
 Recorder (item, quantity)
 Purchase (item, quantity, cost, customer name, date of purchase)
- Create the above database using SQL.
 - Display the number of customers for the shop on a particular day.
 - Write a query to display the item purchased by a given customer name.
 - Display the overall income for the shop on a given date.
 - Find highest cost item name.
 - Find frequently selling item name.

(P.T.O.)

(4)

9. Write a program to calculate the commission of the sales man. If sales made comm
- | | |
|---------------|------|
| >10000 | 500 |
| 10000 – 20000 | 1000 |
| >20000 | 1500 |
10. Write pl/sql script to determine the salary of employee in the emp table. If salary>7500 give an increment of 15%, otherwise display the message no increment. Get the empno from the user.



VIVA VOCE: 10
P.N.B. - 05
