#### PSG COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

## MCom(CA) DEGREE EXAMINATION MAY 2024

(Second Semester)

#### Branch - COMMERCE WITH COMPUTER APPLICATIONS

### **DATABASE SYSTEM USING ORACLE**

Time: Three Hours

Maximum: 75 Marks

#### **SECTION-A (10 Marks)**

Answer ALL questions

|               |                 | ALL questions carry EQUAL marks $(10 \times 1 = 1)$  | <u>U)</u>  |     |
|---------------|-----------------|--|------------|-----|
| Module<br>No. | Question<br>No. | Question   | K<br>Level | СО  |
| 1             | 1               | One row of data in a Table is called as a) Attribute b) Domain c) Tuple d) Relation  | K1         | CO1 |
|               | 2               | A Relation which does not contain any Multi Valued Attribute is said to be in a) BCNF b) 1NF c) 2NF d) 3NF   | K2         | CO1 |
| 2             | 3               | DDL commands are i) CREATE ii) ALTER iii)U PDATE iv) TRUNCATE Identify the correct option for the above. a) All b) i,ii,iii c) i,ii,iv d) ii, iii, iv  | K1         | CO2 |
|               | 4               | SELECT * FROM products ORDER BY pname DESC;  a) Sorts the products table by pname by description b) Sorts the products table by pname in reverse order c) Sorts the products table by pname in alphabetical order d) Sorts the products table by DESC in reverse order | K2         | CO2 |
| 3             | 5               | SELECT city FROM C1 UNION SELECT city FROM Customer - will fetch a) All cities from both tables b) All cities which are common for both tables c) All cities by avoiding duplicates d) NULL  | K1         | CO3 |
|               | 6               | SELECT LEFT('www.psgcas.ac.in',6); - identify the correct output. a) www.ps b) gcas.ac.in c) .ac.in d) NULL  | K2         | CO3 |
| 4             | 7               | The TCL commands are - choose the correct option.  i) COMMIT ii) TRUNCATE iii)ROLLBACK iv)DROP  a) i,ii,iii b) ii,iii c) i,ii,iii,iv d) i,iii  | K1         | CO4 |
|               | 8               | The structure of PL/SQL contains a) DECLARE, EXCEPTION, BEGIN, END b) DECLARE, BEGIN, EXCEPTION, END c) DECLARE, START, EXCEPTION, BEGIN, END d) DECLARE, TRIGGER, CURSOR, EXCEPTION, BEGIN, END   | K2         | CO4 |
| 5             | 9               | The temporary memory or workstation is termed as a) Procedure b) Function c) Cursors d) Exception  | K1         | CO5 |
|               | 10              | The cursor which is capable of fetching a single row?  a) Implicit cursor  b) ROWTYPE  c) Explicit cursor  d) Trigger  | K2         | CO5 |

#### SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks  $(5 \times 7 = 35)$ 

| Module<br>No. | Question<br>No. | Question   | K<br>Level | со  |
|---------------|-----------------|--|------------|-----|
|               | 11.a.           | Expound on Integrity rules and Relational Languages.       |            |     |
| 1             |                 | (OR)   | K2         | CO1 |
|               | 11.b.           | Brief about Data models and Dependency with a neat sketch. | '          |     |

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|---|-------|--|----|-------------|
| 2 | 12.a. | Create STUDENT table and COURSES table with the PRIMARY KEY, FOREIGN KEY and CHECK constraints and explain the purpose and types of constraints. | K3 | CO2         |
| _ | (OR)  |  |    |             |
|   | 12.b. | Implement all DDL commands on the table<br>EMPLOYEE(eid,ename,Salary). Explain CASE structure.   |    |             |
|   | 13.a. | Examine the built in functions related to Arithmetic, String and Date manipulations. Demonstrate the functions with an example.                  |    |             |
| 3 | (OR)  |  | K4 | CO3         |
|   | 13.b. | Analyze the syntax and give the usage of Views and grouping of data.   |    |             |
|   | 14.a. | Investigate the functions of transaction control statements and Illustrate with an example.  |    |             |
| 4 |       | (OR)   |    | CO4         |
|   | 14.b. | Categorize the types of control structures used in SQL and explain with an example.  |    |             |
|   | 15.a. | Explain about i) Cursors ii) For loops in cursor iii) SELECTFORUPDATE  |    |             |
| 5 | (OR)  |  | K5 | CO5         |
|   | 15.b. | Expound on types of exceptions and how do you handle the exceptions.   |    |             |

# SECTION -C (30 Marks) Answer ANY THREE questions

ALL questions carry EQUAL Marks  $(3 \times 10 = 30)$ 

| Module<br>No. | Question<br>No. | Question  | K<br>Level | СО  |
|---------------|-----------------|---|------------|-----|
| 1             | 16              | Evaluate the use of 1NF,2NF,3NF and BCNF by applying in any one table with necessary attributes.  | K5         | COI |
| 2             | 17              | Analyse by Creating a table <i>INVENTORY</i> (pid, pname, uprice, stock, ROL) with possible constraints and apply all the DML commands to manage the table. Also retrieve the information of the products whose ROL is <10.   | K5         | CO2 |
| 3             | 18              | Develop queries using sub queries and nested queries for the given table and summarize the detailed discussion about that.  EMPLOYEE(empid,ename,role,age)  DEPT(deptid,dname)  EMP_DEP(empid,deptid)  a) Create tables with PRIMARY, FOREIGN and CHECK constraints  b) Select names of the employees whose deptid=12  c) Select the names of the employees who are working in 'SALES' and 'ADMIN' departments. | K6         | CO3 |
| 4             | 19              | Develop a PL/SQL script to split the table STUDENT into two tables namely PASS and FAIL based the percentage of marks. The data of those who have scored above 50% will be moved to PASS table and the remaining to FAIL table. The STUDENT table containing 100 rows with the schema STUDENT(Rollno,name,degree,dept,total,perc).  | K6         | CO4 |
| 5             | 20              | Examine while inserting a row into the table for raising a warning if we try to insert student details whose age is not in the range of 17 and 22 by creating Triggers.   | K5         | CO5 |