

**CVM UNIVERSITY**  
**M.Sc.(INFORMATION TECHNOLOGY) – SEMESTER 1**  
**WINTER2021 EXAMINATION**

**Course Code(s): 101410103**

**Course Title: Relational Database Management Systems**

**Total Printed Pages : 03**

**Date: 26/02/2021**

**Time: 02.00 pm to 04.00 pm**

**Maximum Marks: 60**

**Instructions:**

- Attempt all questions.
- Numbers to the right indicate full marks for each question.
- Make suitable assumptions wherever necessary.

**Q.1 (a) Answer the following multiple choice questions. (08)**

- (1) A \_\_\_\_\_ is a database object that holds user data.
- |              |                   |
|--------------|-------------------|
| A. Procedure | B. Sequence       |
| C. Table     | D. None of These. |
- (2) Which of the following is/are the DDL statements?
- |           |                  |
|-----------|------------------|
| A. Create | B. Drop          |
| C. Alter  | D. All of these. |
- (3) \_\_\_\_\_ is a chart that visually represents the relationship between database entities.
- |                           |
|---------------------------|
| A. Data flow diagram      |
| B. Database model diagram |
| C. Entity model diagram   |
| D. None of given          |
- (4) No transitive dependency is associated with \_\_\_\_\_
- |        |                   |
|--------|-------------------|
| A. 1NF | B. 2NF            |
| C. 3NF | D. None of these. |
- (5) Which of the following are TCL commands?
- |                      |                      |
|----------------------|----------------------|
| A. Commit & Rollback | B. Update & Truncate |
| C. Select & Insert   | D. Grant & Revoke    |
- (6) PL/SQL stands for
- |                             |
|-----------------------------|
| A. Portable Language/SQL    |
| B. Programming Language/SQL |
| C. Procedural Language/SQL  |
| D. None of these.           |
- (7) Which of the following is true about PL/SQL cursors?
- |   |
|---|
| A. Explicit cursors are automatically created by Oracle.  |
| B. Implicit cursors are programmer defined cursors.   |
| C. The most recent implicit cursor is called the SQL cursor, and has the attributes like %FOUND, %ISOPEN, %NOTFOUND, and %ROWCOUNT. |
| D. All of these.  |
- (8) PL/SQL has two types of subprograms, procedures and functions. Which of the following subprogram is used to compute a value?
- |                  |                  |
|------------------|------------------|
| A. Procedure     | B. Function      |
| C. Both A and B. | D. All of these. |

- (b) **Answer the following. (Fill in the blanks and True or False)** (08)
- (1) The \_\_\_\_\_ command is used to change or modify column names in a table.
  - (2) **True/ False:** Each table column definition is separated from the other by a colon.
  - (3) **True/ False:** A table cannot contain multiple unique keys.
  - (4) The word SQL stands for \_\_\_\_\_.
  - (5) **True/ False:** PL/SQL is a block structured Language.
  - (6) If we have not specified ASC or DESC after a SQL ORDER BY clause, the \_\_\_\_\_ is used by default.
  - (7) SQL virtual table also known as \_\_\_\_\_.
  - (8) A \_\_\_\_\_ is an arrangement of integers that generates unique values (numeric or alphanumeric) in ascending order on specific demand.

**Q.2 Attempt any six of the following.** (12)

- (1) Define RDBMS. Also List Dr. E. F Codd's rules for RDBMS.
- (2) Use SQL statements to create CUSTOMER Table with suitable columns. Also define primary key constraint, NOT NULL, DEFAULT constraints wherever appropriate.
- (3) Write SQL commands for the following..
  1. To create a table EMP having fields (ENO number (2,0), DNO number(1,0), EName varchar2(15)), where ENO is primary key and DNO is foreign key referencing DEPTNO of table DEPT.
  2. To insert records in EMP table.
  3. To rename table EMP to EMPLOYEE.
- (4) Explain DML Commands with suitable example.
- (5) Explain Drop and Truncate command with suitable example.
- (6) Explain Aggregate functions with suitable example.
- (7) Explain PL/SQL Block with suitable example.
- (8) Write a program to create a trigger is preventing to deleting row from employee table.

**Q.3** What is Normalization? Explain the brief process of Normalization with suitable example. (08)

**OR**

**Q.3** Draw E- R diagram for Online Banking System. (08)

- Q.4 Define Constraints. Explain any three with suitable Example. (08)  
**OR**
- Q.4 Explain ORACLE's SQL built in Functions. (08)
- Q.5 Explain ORACLE Sequence with suitable example. (08)  
**OR**
- Q.5 Write a note on oracle Sub Queries with suitable example. (08)
- Q.6 Explain PL/SQL Procedure. Also write a procedure that explains the use of IN OUT parameter by updating the value of salary. (08)  
**OR**
- Q.6 Explain PL/SQL Function. Also write a function that calculates total number of employees that are working in the given department. (08)

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