B. C. A. (Sem. III) (WEF-2016) Examination

August - 2022

CS-15 : RDBMS Using Oracle

Faculty Code : 003

Subject Code : 1033003

Time : $2\frac{1}{2}$ Hours]   [Total Marks : **70**

1   Answer the following questions :
   (A) Attempt the following objective questions: **4**
      (1) _____ operator is also known as pattern matching operator.
      (2) SQL stands for _____.
      (3) Which technique is used to decompose data into two dimensional tables?
      (4) DCL stands for _____.
   (B) Attempt the following :   **2**
      (1) Differentiate: E-R Diagram.
   (C) Attempt the following :   **3**
      (1) Write a note on E-F Codd rules.
   (D) Attempt the following :   **5**
      (1) Write a note on operators.

2   Answer the following questions :
   (A) Attempt the following objective questions :   **4**
      (1) SQL * plus is an environment in which user can execute SQL commands and PL/SQL blocks. (True/ False)
      (2) _____ operator is very useful when user have multiple choices.
      (3) DQL Stands for _____.
      (4) Which operator in SQL is specially used for range searching?
   (B) Attempt the following :   **2**
      (1) Explain: DBMS v/s RDBMS.
   (C) Attempt the following :   **3**
      (1) Explain: Data types in SQL.
   (D) Attempt the following :   **5**
      (1) Write a note on SQL Components.

3 Attempt the following questions :
   (A) Attempt the following :   4
       (1) Unique constraint is used to store unique and at least one value. (True/False)
       (2) When we want to set some rules on table, at that time we used _____.
       (3) A table joins with itself is called _____.
       (4) _____ command is used to modify the structure of any existing table.
   (B) Attempt the following :   2
       (1) Differentiate: primary key v/s not null.
   (C) Attempt the following :   3
       (1) Explain constraints in detail.
   (D) Attempt the following :   5
       (1) Assume the table and solve the following query: Employee : Emp_no (primary key), emp_name,city,mgr_no, job, sal, d_no
         – Display the entire employee whose name starts with 'r' character.
         – Display department wise average salary whose dept no is not null.

4 Attempt the following questions :
   (A) Attempt the following :   4
       (1) _____ clause acts like a where clause but is used for groups rather than rows.
       (2) The condition in a where clause can refer to only one value. (True/False)
       (3) _____ operators are used with sub query.
       (4) In TCL, we have _____, _____and _____ commands.
   (B) Attempt the following :   2
       (1) Explain: substr(), to_date()
   (C) Attempt the following :   3
       (1) Write a note on Joins.
   (D) Attempt the following :   5
       (1) Consider these following tables and only solve the query.
         Tables: 1) student: s_id (Primary key), sname, city
         2) result: r _id (Primary Key), s_id (Foreign key), mark1, mark2,
         Query:
         – Display all the students whose city is Mumbai.
         – List out all the students whose mark2 between 65 and 80.

5   Attempt the following questions :
     (A)   Attempt the following :   4
           (1)   What is synonym?
           (2)   Which locking mechanism is the default locking
                 mechanism?
           (3)   Which database object is also known as virtual
                 table?
           (4)   Indexes may be created or dropped at any time.
                 (True/False)
     (B)   Attempt the following :   2
           (1)   Explain- latches.
     (C)   Attempt the following :   3
           (1)   What is index? Explain.
     (D)   Attempt the following :   5
           (1)   What is sequence? Explain with example.

6   Attempt the following questions :
     (A)   Attempt the following :   4
           (1)   What is lock?
           (2)   Which index is also known as Balanced Tree
                 Index?
           (3)   The address field of an index is called _____.
           (4)   Which locking mechanism is suitable for web
                 applications?
     (B)   Attempt the following :   2
           (1)   Define the term: cluster, snapshots.
     (C)   Attempt the following :   3
           (1)   What is view? Explain.
     (D)   Attempt the following :   5
           (1)   Differentiate: pessimistic locking v/s optimistic
                 locking.

7   Attempt the following questions :
     (A)   Attempt the following :   4
           (1)   PL/SQL stands for _____.
           (2)   Which exception is raised automatically when PL/
                 SQL blocks violets oracle rule?
           (3)   Which cursor is useful to manipulation of data in
                 any table?
           (4)   Which data type is also known as user defined
                 data type?
     (B)   Attempt the following :   2
           (1)   Explain: abstract data type, varrays.
     (C)   Attempt the following :   3
           (1)   Differentiate: %type v/s % rowtype,
     (D)   Attempt the following :   5
           (1)   Explain Procedure with suitable example.

8   Attempt the following questions :
    (A) Attempt the following :   4
         (1) A cursor has _____ attribute.
         (2) Which cursor is also known as user defined cursor?
         (3) Which object can hold another object within it?
         (4) PL/SQL table are similar to array in C. (True/False)
    (B) Attempt the following :   2
         (1) Differentiate: Pre-defined Exception v/s User-defined Exception.
    (C) Attempt the following :   3
         (1) Write a note on various types of cursors.
    (D) Attempt the following :   5
         (1) What is trigger? Explain with suitable example.

9   Attempt the following questions :
    (A) Attempt the following :   4
         (1) _____ holds the actual data.
         (2) Which files are also known as journals of the database?
         (3) LGWR stands for _____.
         (4) Which object specifies when and how many times a job is run?
    (B) Attempt the following :   2
         (1) What is System Global Area?
    (C) Attempt the following :   3
         (1) What is initialization parameter? Explain.
    (D) Attempt the following :   5
         (1) What is instance architecture? Explain.

10 Attempt the following questions :
    (A) Attempt the following :   4
         (1) A database is divided into logical storage units called _____.
         (2) A segment has _____ types.
         (3) SMON stands for _____.
         (4) _____ type of schedules is available in oracle.
    (B) Attempt the following :   2
         (1) Explain: Data files, Redo log files.
    (C) Attempt the following :   3
         (1) What is scheduler? Explain in detail.
    (D) Attempt the following :   5
         (1) Write a note on memory structure.

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