C.U.SHAH UNIVERSITY
Winter Examination-2022

Subject Name : Database Systems with ORACLE

Subject Code : 4CS03IDS1   **Branch: B.Sc.I.T.**

Semester: 3   **Date: 23/11/2022**   **Time: 11:00 To 02:00**   **Marks: 70**

Instructions:
  (1) Use of Programmable calculator & any other electronic instrument is prohibited.
  (2) Instructions written on main answer book are strictly to be obeyed.
  (3) Draw neat diagrams and figures (if necessary) at right places.
  (4) Assume suitable data if needed.

Q.-1   Attempt following MCQs.   **14**

1)   Which is DCL Command?
   a)   Select   b)   Alter
   c)   Revoke   d)   create

2)   Which commands defines column (attributes) of a table?
   a)   DDL   b)   DML
   c)   DCL   d)   None of these

3)   Which command uses WHERE clause in its statement?
   a)   DDL   b)   DML
   c)   Both A and B   d)   None of these

4)   Primary key attributes is/are_____
   a)   Unique   b)   Not null
   c)   Both A and B   d)   None of these

5)   Which of following is/are constraint in SQL?
   a)   Primary key   b)   Check
   c)   Unique   d)   All of these

6)   Which operator tests column for absence of data?
   a)   Not   b)   is null
   c)   exists   d)   All of the above

7)   Select length ('database') from dual; returns _____
   a)   8   b)   9
   c)   7   d)   10

8) Which is also known as inner join?
   a) self
   b) equi
   c) non-equi
   d) None of these

9) An index automatically created on _____
   a) Primary key
   b) Foreign key
   c) Composite key
   d) None of these

10) Which join retrieve all rows of both tables?
    a) cross
    b) inner
    c) outer
    d) self

11) Advantages of DDBMS are _____
    a) Faster data access
    b) faster data processing
    c) User friendly interface
    d) All of these

12) What is OLAP?
    a) Online Analysis Protocol
    b) Online Analytical Processing
    c) Online Active Protocol
    d) None of the above

13) A relation has no partial dependency is in which normal form?
    a) Third
    b) First
    c) Second
    d) All of the above

14) Which is aggregate function in oracle?
    a) LENGTH( )
    b) SUM( )
    c) CONCAT( )
    d) None

Attempt any FOUR questions from following.

Q.-2 Attempt following. **14**
  a) What is DML Commands? Explain SELECT command with WHERE
    and ORDER BY clause with example. 7
  b) Define Normalization. Explain 1st, 2nd and 3rd Normal forms. 7

Q.-3 Attempt following. **14**

  a) Discuss Dr. E. F. Codds Rule. 7
  b) What is Join? Explain Equi and Non-Equi join with examples. 7

Q.-4 Attempt following. **14**
  a) Define sequence. Why we create it? Explain sequence with example. 7
  b) List special operators used in SQL. Explain BETWEEN, ANY and ALL
    operators in a query. 7

Q.-5 Attempt following. **14**

  a) What is set operators? Explain set operators with suitable examples. 7

b) Define View. Explain View with syntax and example. 7

Q.-6   Attempt following. **14**

a) What is DDBMS? Explain advantages of DDBMS. 7
b) Define Decision support data. Explain Operation data Vs. Decision support Data 7

Q.-7   Attempt following. **14**

a) Write a note on: Business Intelligence Architecture. 7
b) Explain the need for the two phase commit protocol. 7

Q.-8   Attempt following. **14**

a) Write a SELECT query using following table.
STUDENT (ROLLNO, NAME)
EXAM (ROLLNO, SEM, SUBJECT)
1) Find student name who appeared exams in 2nd semesters. 2
2) Count students name appeared in exam of 5th semester. 2
3) Find students name who appeared in 'ORACLE' subject. 3

b) Attempt following.
Consider table **STUDENT (ROLLNO, NAME, COURSE, SEM, SUBJECT)**
1) Write/Create view using student table with 'BSCIT' course with 4th semesters Student name. 3
2) Write/create sequence that starts from 1 upto 100 and Incremented by 1. with cycle and no cache. 4