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BCACAC 158

**Credit Based Second Semester B.C.A. Degree Examination, May/June 2016
(New Syllabus) (2012-13 Batch Onwards)
DATABASE CONCEPTS AND ORACLE
(Common to all batches)**

Time : 3 Hours

Max. Marks : 80

Note : Answer **any ten** questions from Part – A and any **one full** question from **each** Unit in Part – B.

PART – A

(10×2=20)

1. a) Define the terms Data Base and DBMS.
- b) Differentiate logical and physical data independence.
- c) What is DDL ? Why is it used ?
- d) Differentiate spanned and unspanned records.
- e) Define 1NF.
- f) What is degree of a relation ?
- g) How to insert a record in SQL ? Give an example.
- h) What is a dual table in SQL ?
- i) Differentiate char and varchar in SQL.
- j) Differentiate stored procedures and functions.
- k) Name the four cursor attributes.
- l) Write any two uses of database triggers.

PART – B

Unit – I

2. a) Explain the different types of languages used in DBMS.
- b) Write any four advantages of DBMS.
- c) Explain any five symbols used in ER diagrams along with their meaning. **(6+4+5)**
3. a) Describe the Three-Scheme architecture of DBMS with a neat diagram.
- b) Explain any two DBMS interfaces.
- c) List and explain different types of attributes. **(6+4+5)**

P.T.O.

**Unit – II**

4. a) Explain 2NF with example.
b) Explain SELECT and PROJECT operations with a suitable examples.
c) Write a note on Internal Hashing. **(6+5+4)**
5. a) What is RAID technology ? How it helps to improve disk access performance ?
b) Explain any five operations on files.
c) Write a note on heap file organization. **(6+5+4)**

Unit – III

6. a) Explain the UPDATE command with an example.
b) List and explain any five data types used in oracle.
c) Explain GROUP BY and ORDER BY clauses in SQL with an example to each. **(4+5+6)**
7. a) Consider the table EMPLOYEE(ENO,NAME,DEPT,DESIGNATION,SALARY).
Write the following queries :
i) Retrieve the name of all the employees working for HR dept
ii) Delete the records belong to Accounts dept
iii) Add a column PHONE of data type Number with size 10
iv) Increase the salary of all the employees by 20%
v) List the employee details according to DEPT.
b) Explain how to insert data into a table from another table with suitable example.
c) Explain any four aggregate functions with example. **(5+6+4)**

Unit – IV

8. a) Explain the PL/SQL program structure with an example.
b) Explain the advantages of using database procedures.
c) What is a Trigger ? Explain the types of trigger. **(5+5+5)**
9. a) Explain the steps involved in declaring an explicit cursor and manipulating data in the active data set.
b) Explain any two looping statements in PL/SQL with example.
c) With an example explain user defined exception handling in PL/SQL. **(6+5+4)**