BCACAC 158

Credit Based Second Semester B.C.A. Degree Examination, April/May 2014
(New Syllabus – 2012-2013 Batch Onwards)
DATABASE CONCEPTS AND ORACLE

Time : 3 Hours

Max. Marks : 80

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

PART – A

(10×2=20)

1. a) Differentiate logical and physical data independence.
   b) Define Metadata and System catalog.
   c) Why Storage Definition Language is used ?
   d) What is dual table ?
   e) What do you mean by a Primary Indexing ?
   f) Define OUTER JOIN Operation in a Relation.
   g) State with example how do you delete a record in SQL.
   h) How DEFAULT clause is used in the table definition ?
   i) Write any two restrictions on CHECK constraint.
   j) Name the four Cursor attributes.
   k) What is the difference between Function and stored Procedure ?
   l) Write any two uses of Database Triggers.

PART – B

UNIT – I

2. a) Explain different types of languages used in DBMS.
   b) Write any four advantages of DBMS.
   c) Explain different End users of database.

   (6+4+5)

3. a) Describe the Three schema architecture of DBMS with diagram.
   b) Explain different types of DBMS interface.
   c) List and explain the different types of attributes.

   (5+5+5)

UNIT – II

4. a) Explain SELECT, PROJECT and RENAME operations with examples.
   b) Explain any five operations on files.
   c) Write a note on 2NF and NF. (6+5+4)

5. a) State the usage of Update operations in a Relational Model.
   b) Explain how the RAID technology improves the performance of disk access.
   c) Explain Heap file organisation. Mention disadvantage of the same. (5+5+5)

UNIT – III

6. a) List and explain any five clauses used in SELECT statement in SQL.
   b) What is a view ? What are the rules to make a view update table ?
   c) Write SQL queries for the following operation on EMP table.
      EMP (ENO,NAME,DEPT,BASIC,DATE_JOIN)
      i) Retrieve the details of employees of Accounts department.
      ii) Add a column DESIG of data type varchar and size 15.
      iii) Increase the basic salary of employees by 5% belonging to "Admin" department.
      iv) List the employees details having 'b' as second character in their names.
      v) List the employees details according to their department. (5+5+5)

7. a) Explain Pattern matching and Range searching predicates in SQL with examples.
   b) What is subquery ? Explain with an example.
   c) Explain the method to grant the privileges and to revoke the privileges with an example. (5+5+5)

UNIT – IV

8. a) What are literals ? Explain the different types of literals.
   b) What are the advantages of PL/SQL.
   c) What is a Trigger ? Explain the types of Trigger. (5+5+5)

9. a) With syntax and example explain how stored procedure is created and executed in PL/SQL.
   b) Write a short note on exception handling in PL/SQL program.
   c) What is a Cursor ? Explain the steps involved in declaring a cursor and manipulating data in the active set. (5+4+6)