BCACAC 158

Credit Based Second Semester B.C.A. Degree Examination, April/May 2013
(New Syllabus) (2012-13 Batch)
DATABASE CONCEPTS AND ORACLE

Time : 3 Hours

Max. Marks : 80

Note : Answer **any 10** questions from Part – **A** and **one full** question from each Unit in Part – **B**.

PART – A

(10×2=20)

1. a) Define Database Management System.

 b) Define Meta data and system catalog.

 c) What are mappings ?

 d) What is weak entity type ? Give example.

 e) Define BOYCE-CODD (BCNF) normal form.

 f) List the types of hashing techniques.

 g) How can you rename the table ? Give an example.

 h) What is dual table ?

 i) Write syntax and example of UPDATE command in SQL.

 j) Give two advantages of PL/SQL over SQL.

 k) List any two oracle named exceptions.

 l) Differentiate before and after triggers.

PART – B
UNIT – I

2. a) Compare DBMS approach over traditional file oriented system.

   b) Describe the three schema architecture with a neat labeled diagram.

   c) Explain Relationship type and structural constraints with an example.   **(5+5+5)**

3. a) How can you classify DBMS ? Explain.

   b) Describe the various symbols used in an ER diagram using example.

   c) Write a note on database languages.   **(5+5+5)**

UNIT – II

4. a) Illustrating with example define the terms domain, attribute, tuple and relations.

   b) Why OUTER UNION operations are used and state one example to specify the same ?

   c) List the other primary file organizations and explain them.   **(5+5+5)**

5. a) How performance can be improved using RAID technology ?

   b) Illustrating with example explain 2NF and 3NF.

   c) Explain unary operations with example.   **(5+5+5)**

UNIT – III

6. a) Create the table : CLIENT_MASTER, with following details

Column Name	Data type	Size	Attributes
CLIENT_NO	Varchar 2	6	Primary key/first letter must start with 'C'
NAME	Varchar 2	20	NOT NULL
ADDRESS 1	Varchar 2	30	NOT NULL
ADDRESS 2	Varchar 2	30	
CITY	Varchar 2	15	NOT NULL
PINCODE	Number	8	NOT NULL
STATE	Varchar 2	25	
BALDUE	Number	10, 2	

b) Write the following queries :

   i) Retrieve the list of names, city and state of the client with CLIENT_NO = 'C00001'.

   ii) Add a column called 'TELEPHONE' of data type 'NUMBER' and size = 10 to the CLIENT_MASTER table.

c) List and explain any 5 data types used in oracle.

d) Explain the methods for granting and revoking the privileges, with example.

(3+2+5+5)

7. a) List and explain six clauses used in SELECT statement.

   b) How do you insert data into a table from another table ? Explain with syntax and example.

   c) Write a note on data constraints used on a table. (6+3+6)

UNIT – IV

8. a) Explain the structure of PL/SQL program with an example.

   b) Explain various commands/statements required to open, process and close the explicit cursor with syntax and example.

   c) With syntax and example explain how a function is created and executed in PL/SQL ? (5+5+5)

9. a) Explain the syntax and usage of the following with example :

   i) While loop

   ii) For loop

   iii) if . . endif

   b) With example explain how user defined exception is handled in a PL/SQL program.

   c) With syntax and example explain how a trigger is created and executed in PL/SQL. (5+5+5)