

Reg. No.

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**BCACAC 158**



**Credit Based Second Semester B.C.A. Degree  
Examination, April/May 2017  
(New Syllabus – Common to all Batches)  
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**

1. a) What is Metadata and System catalog ? (10×2=20)
- b) Define key attribute.
- c) What is a derived attribute ?
- d) What is a superkey ?
- e) What is the degree of a relation ?
- f) What is Normalization ?
- g) What is a dual table ?
- h) List any two aggregate functions with example.
- i) Give the Syntax of DELETE command.
- j) What is the difference between Function and Stored Procedure ?
- k) List any two advantages of PL/SQL.
- l) Write any two uses of package.

P.T.O.



## PART – B

## Unit – I

2. a) What are the responsibilities of a Database Administrator ?  
b) List and explain the different categories of End users.  
c) Explain the three schema architecture of DBMS with diagram. (5+5+5)
3. a) Explain the different types of attributes.  
b) What is data independence ? Explain.  
c) Compare DBMS approach over traditional file oriented system. (5+5+5)

## Unit – II

4. a) Explain the three basic UPDATE operations on relation.  
b) Write a note on internal hashing.  
c) Explain the mechanism used to read data from or write data to the disk. (5+5+5)
5. a) What are the main goals of raid Technology ? How does it achieve it ?  
b) Explain entity integrity and referential integrity constraints.  
c) Explain 1NF and 2NF with example. (5+5+5)

## Unit – III

6. a) Explain pattern matching and range searching predicates in SQL with example.  
b) Explain with example any five string functions in SQL.  
c) What is subquery ? Explain with example. (5+5+5)
7. a) Create a table STUDENT(REGNO, NAME, MARKS1, MARKS2, MARKS3)  
Write the queries for the following.
  - i) Display the structure of the table
  - ii) List all the students whose MARKS1 between 45 and 60
  - iii) Add a column total and average to the above table
  - iv) Calculate TOTAL and update to the table.  
b) List and explain any five clauses used in SELECT statement in SQL.  
c) List and explain five data types in Oracle. (5+5+5)



Unit – IV

8. a) Explain with syntax and example how a trigger is created and executed in PL/SQL.
- b) List and explain any five named exceptions in Oracle.
- c) What is a cursor ? Explain the steps involved in declaring a cursor and manipulating data in the active set. (5+5+5)
9. a) Explain the PL/SQL program structure with example.
- b) With syntax and example explain how procedure is created in PL/SQL.
- c) Explain the if...endif statement in PL/SQL with example. (5+5+5)

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