

Reg. No.

--	--	--	--	--	--	--	--	--	--

BCACAC 158

**II Semester B.C.A. Degree Examination, April/May 2019**

*(Credit Based Semester Scheme)*

*(Common to All Batches)*

**Database Concepts and Oracle**

Time : 3 Hours]

[Max. Marks : 80

**Instructions :** Answer any ten questions from Part - A and any one full question from each unit of Part - B.

PART - A

(10 × 2 = 20)

1. Answer **any ten** of the following :

- Define the terms : (i) Database Schema (ii) Entity
- Define cardinality ratio. Mention its types.
- List any two functions of DBA.
- What is referential integrity constraint?
- Define BOYCE-CODD (BCNF) Normal form.
- List the types of hashing techniques.
- How do you delete a table? Give syntax.
- Differentiate char and varchar in SQL.
- What is nested query? Give an example.
- Write the purpose of COMMIT and ROLL BACK commands.
- What is implicit cursor?
- Write two uses of stored procedures.

PART - B

UNIT - I

- Explain any five characteristics of DBMS.
- Discuss different classes of database users.
- List and explain different types of attributes.

(5 + 5 + 5)

P.T.O.

Sri Dharmasthala Memorial Engineering  
College of Business Management, Library  
MANGALORE - 575 003



3. (a) Describe the three schema architecture of DBMS with a neat diagram.  
(b) Explain any five symbols used in ER diagrams along with their meaning.  
(c) What is data independence? Explain different types. (5 + 5 + 5)

**UNIT - II**

4. (a) Explain SELECT and PROJECT operations in relational algebra with an example.  
(b) Explain various join operations in relational algebra.  
(c) Explain Heap file organization. Mention the advantages. (5 + 5 + 5)
5. (a) Explain constraint violations during insert, update and delete operations on a relation.  
(b) Explain 2NF and 3NF with example.  
(c) Explain the five different operations on a file. (5 + 5 + 5)

**UNIT - III**

6. (a) Explain ORDER BY and GROUP BY clauses in SQL with syntax and example.  
(b) Explain different data types used in Oracle.  
(c) Explain ALTER TABLE and UPDATE command with syntax and example. (5 + 5 + 5)
7. (a) Explain the methods for granting and revoking the privileges, with example.  
(b) How do you connect multiple tables in Oracle? Explain.  
(c) Consider the table

STUDENT(RNO,NAME,COURSE,SEMESTER)

Write SQL queries for the following :

- (i) Display all students of fifth semester BCA  
(ii) Display the number of students who have opted for BSc course  
(iii) Remove record of student 'Kiran'  
(iv) Display the number of students in each course  
(v) Display names of students that end with 'sh' (6 + 4 + 5)



UNIT – IV

8. (a) Explain the structure of PL/SQL program with an example.  
(b) With syntax and example, explain how function is created in PL/SQL.  
(c) Explain any two looping statements in PL/SQL. **(5 + 5 + 5)**
9. (a) Explain how explicit cursor is declared and managed in PL/SQL with syntax and example.  
(b) Write a short note on exception handling in PL/SQL program.  
(c) Explain how to create a trigger in PL/SQL with syntax and example. **(6 + 4 + 5)**
- 

Shri Dharmasthala Manjunatheswara  
College of Business Management Library  
MANGALORE - 575 003