

E-3907

**B.C.A. (Part-II) Examination, 2021
(Old Course)
Paper Fourth
DBMS (ORACLE, SQL)
(202)**

Time: Three Hours]

*[Maximum Marks: 100
[Minimum Pass Marks:40*

Note: Attempt any two parts from each Unit. All question carry equal marks.

Unit-I

1.
 - a. What do you mean by database management system? Describe the database management system's overall structure.
 - b. Briefly describe the network data model using an example.
 - c. With appropriate examples, describe the various levels of data abstraction in relational databases.?

Unit-II

2.
 - a) Explain mapping constraint. How do we convert an E-R model to relational schema?
 - b) Discuss the types of attributes using an example.
 - c) Point out distinctions between specialisation and aggregation using an example.

Unit-III

3.
 - a. What do you mean by Join? Elaborate different techniques of joins in DBMS.
 - b. Demonstrate the various rules that can be used to establish an integrity constraint.
 - c. What do you mean when you use the term domain relational calculus? Justify?

Unit-IV

4.
 - a. Describe with specific examples the pitfalls associated with relational database design?
 - b. What do you mean by normalization? Explain the different normal forms used for normalization?
 - c. What is the definition of join dependence? Why are we incorporating it into the fifth normal form?

Unit-V

5.
 - a) With an example, define the terms "order by clause" and "group by clause."
 - b) What is the commercial database query language? Explain its equipment?
 - c) What are SQL's primary components? What commands are included in that component?