



Reg. No.

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BCACACN 301

**Third Semester B.C.A. Degree Examination, Dec. 2023/Jan. 2024
(NEP-2020)
(2022-2023 Batch Onwards)
DATABASE MANAGEMENT SYSTEMS
(DSCC)**

Time : 2 Hours

Max. Marks : 60

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

PART – A

(6×2=12)

1. a) Differentiate Physical data Independence and Logical data Independence.
b) Define DBA. List out any two functions of DBA.
c) What is a candidate key ? Give an example.
d) What do you mean by normalization of data ?
e) What is the use of ORDER BY clause ? Write the syntax and example.
f) What is subquery ? Give example.
g) Give the structure of PL/SQL program.
h) What is the purpose of ROLLBACK command ?

PART – B

Unit – 1

2. a) Explain the different categories of End Users in DBMS.
b) Explain the three schema architecture of a database with a neat diagram.
c) List and explain the different types of DBMS interface. (4+4+4)
3. a) Explain any four types of attributes used in ER modelling with example.
b) Explain the advantages of DBMS. (6+6)

Unit – 2

4. a) Define third normal form of a relation. How do you decompose a relation in 2NF into 3NF ? Give example.
b) Explain the term Domain, Tuple, and Relation schema with example. (6+6)

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5. a) Explain any three types of constraints.
 b) What is functional dependency ? Explain 1NF with example. (6+6)

Unit – 3

6. a) Explain ALTER command with various clauses using syntax and example.
 b) Consider the Table Name : STUDENT

Column Name	Data type	Size	Attribute
Reg_No	Varchar2	5	Primary Key, Starts with 'S'
Name	Varchar2	25	Not Null
Class	Varchar2	4	BA/BSC/BCA/BCOM/BBM
Birth_date	Date	8	
Sex	Character	1	'M'/'F'
Height	Number	6, 2	Not Null
Weight	Number	6, 3	Not Null

Write the following Queries :

- i) List the name of boys with weight more than 55KG.
 ii) List the details of students in alphabetical order of name.
 iii) List the maximum, minimum and average weight of students in each class. (6+6)
7. a) Explain the types of joins used in SQL with example.
 b) Explain the various clauses used in SELECT statement with example. (6+6)

Unit – 4

8. a) What is cursor ? Explain different types of cursor.
 b) Explain various looping statements of PL/SQL with syntax and example. (6+6)
9. a) Explain with syntax and example how a function is created and executed in PL/SQL.
 b) Explain various forms of if endif statements with syntax and example. (6+6)