

Total No. of Printed Pages : 4

Roll No.....

BCA-09/DIT-05
DATABASE MANAGEMENT SYSTEM

Bachelor of Computer Applications (BCA-11/16/17)

Diploma in Information Technology (DIT-17)

Second Semester, Examination-2020

Time Allowed : 2 Hours

Maximum Marks : 80

Note : This paper is of Eighty (80) marks divided into Two (02) sections A and B. Attempt the question contained in these sections according to the detailed instructions given therein.

Section-A

(Long Answer Type Questions)

Note : Section-'A' contains Five (05) long answer type questions of Twenty (20) marks each. Learners are required to answer any two (02) questions only. (2×20=40)

1. Explain basic structure of SQL. Write down complete syntax of create, insert, delete and modification commands supported by SQL. Explain 'group by' SQL query with example.
2. What is Data Independence? What is the difference between Logical and Physical Independence?
3. What is DML? Write examples of the following SQL Commands.
 - (a) Equi Join
 - (b) Self Join
 - (c) Non-Equi Join
 - (d) Outer Join
4. Explain different anomalies you remove while going from 1 NF to 2 NF and then from 2 NF to 3 NF. What do you mean by Boyce Codd Normal Form?

5. Create a table with attribute emp-no., emp-name, emp-designation, dept-no., emp-net-sal and write the command for :
- (a) List the name of all employees who belongs to the dept no 10.
 - (b) List the dept no. Where the number of employee are more than five.
 - (c) List the name of employees who withdraw the net salary more than Rs.10,000.

Section-B

(Short answer type questions)

Note: Section-B Contains Eight (08) short answer type questions of Ten (10) marks each. Learners are required to answer any four (04) questions only. (4×10=40)

1. Describe various relational operators that are used in Relation Algebra.

2. What are Codd's rules for relational data model?
3. What is the difference between primary and non-primary key attributes in Relational Database System?
4. What is the difference between Primary Key and Foreign Key? Explain with the help of Examples.
5. What is Primary File Organization in Database Management System? Explain.
6. What are the different constraints considered in SQL while creating a table?
7. What do you understand by Database Architecture?
8. What are the different types of Database Failures? Explain.
