A (Printed Pages 4)

(20222) Roll No. .

B.C.A.-V Sem.

18021 (CV-III)

B.C.A. Examination, Dec.-2021

INTRODUCTION TO DBMS

(BCA-501)

Time : 1½ Hours] *[Maximum Marks : 75*

Note : Attempt questions from **all** sections as per instructions.

Section-A

(Very Short Questions)

Note : Attempt any **two** questions. Each question carries 7.5 marks. Very Short Answer is required not exceeding 75 words. 2×7.5=15

1. What is Functional dependency? Explain it briefly.
2. What is Transaction? Explain it.

P.T.O.

3. Define Primary Key, Not Null key and Unique key.
4. Explain Hashing in brief.
5. Explain advantage of database management system over file oriented system.

Section-B

(Short Answer Questions)

Note : Answer any **one** question out of the following three questions. Each question carry 15 marks. 1×15=15

6. Explain specialization and generalization concepts in ER diagram with suitable example.
7. Why should normalization be performed on a table and what are it benefits. Explain 3NF.

8. What are the pitfalls of lock based Protocol?

Section-C

(Long Answer Questions)

Note : Answer any **two** questions out of the following five questions. Each question carry 22.5 marks.

2×22.5=45

9. Write SQL Query for the following table

Employee (ENO, Ename, DOB, Address (City), Salary, Gender, D Number)

Dept (DNumber, Dname, MEmpNo, M-Start date)

1. Display the age of 'male' employee.
2. Display the name of highest salary paid 'Female' employee.
3. Display the name of dept. of Employee 'XYZ'.

4. Display all employee belong to same address (city).
5. Which employee is oldest manager in Company.

10. (a) Why the concurrency control is needed? Explain it.

    (b) Describe different method of Indexes?

11. What are the characteristics of SQL. Discuss the five aggregate function with suitable example.

12. Define E-R Diagram. Draw on E-R Diagram for library management system, take relevant entities and attributes for the library management system.

13. Explain three level architecture of DBMS.