# CHRIST DEEMED TO BE UNIVERSITY,Bengaluru - 560029

**End Semester Examination November/December - 2021**

**Bachelor of Computer Applications III SEMESTER**

Code: BCA334                                                      Max.Marks: 100

Course: DATABASE MANAGEMENT SYSTEM                               Duration: 3Hrs

## SECTION A

**Answer all the questions.**                                    10X2=20

1   What is a tuple in DBMS? Give an example.

2   Write short notes on Schema Diagram.

3   Define Total Participation.

4   When should we not use indexing in a database?

5   Why are duplicate tuples not allowed in a relation?

6   State the advantages of using normalization on relations.

7   State any two database languages. Write the most important functions of each of them.

8   What is a transaction?

9   What is data encryption?

10  Write short notes on Data mining.

## SECTION B

**Answer any 5 questions.**                                       5X6=30

11  Discuss the main characteristics of the database approach and how it differs from traditional file systems.

12  How a) Roles b) Weak entity types c) Attribute of a relationship d) Keys e) Cardinalities can be represented in an ER diagram?

13  Explain multilevel indexing scheme.

14  Explain relational schema and instances. Give suitable examples.

15  What is a view? Illustrate creation, insertion and deletion into a view with examples.

16  Explain Caching of Disk Blocks.

17  What additional functions does a DDBMS have over a centralized DBMS?

## SECTION C

**Answer any 5 questions.**                                       5X10=50

18  Discuss the various roles of the various W*orkers Behind the Scene* of DB.

19  Discuss the conventions for drawing an ER diagram. What are the various notations used for ER diagrams? With the help of an example demonstrate a minimum of ten notations and explain its usages in detail.

20  Discuss the types of joins with suitable examples.

21  What is normalization? Explain 2NF and 3NF with suitable examples.

22  Write SQL query syntax and examples for the following:

    (1) To insert values into a table.

    (2) To add and delete a column in a table.

    (3) To update a column value in a table.

    (4) To count the number of records in a table.

    (5) To delete a table.

23  Explain (a) Database security issues (b) Data security by DBA.

24  Why is data replication useful in DDBMSs? What typical units of data are replicated?