Roll No ....

MCADD-305

M.C.A. (Integrated), III Semester

Examination, November 2022

Database Management System

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Discuss primary concept of data models.
   b) Write the role of DBA (Data Base Administrator).

2. a) How reduction of ER schema to tables? Explain.
   b) What are various types of keys? Explain with the help of example.

3. a) Explain E-R Model in detail by taking example.
   b) What is the need of generalization and specialization? Explain.

4. Consider the following tables:
   Employee (Emp_no, Name, Emp_city)
   Company (Emp_no, Company_name, Salary)
   i) Write a SQL query to display Employee name and company name.
   ii) Write a SQL query to display employee name, employee city, company name and salary of all the employees whose salary > 10000
   iii) Write a query to display all the employees working in 'XYZ' company.

5. a) What is Normalization? Explain its role in database?
    b) Define BCNF. Under what circumstances you will recommend BCNF? Give suitable example.

6. a) Explain Integrity Rules.
    b) Discuss the basic concepts of transaction and write ACID properties.

7. a) What is deadlock? Explain deadlock prevention and deadlock detection?
    b) Compare horizontal, vertical and mixed fragmentation in distributed database.

8. a) Explain B tree. How B tree is differ from B+ tree.
    b) Define data mining. How it is different from DBMS?

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