PARUL UNIVERSITY
FACULTY OF IT & COMPUTER SCIENCE
MCA winter 2018– 19 Examination

Semester: 1   **Date: 01/11/2018**
Subject Code: 05201104   **Time: 02:00pm to 04:30pm**
Subject Name: Database Management System   **Total Marks: 60**

Instructions:
1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1   Answer the followings.

A.   Define following.   **(05)**
    1.   What do you mean by Database?
    2.   What is full form of SQL?
    3.   What is a Primary Key?
    4.   Write a query for selecting Name and Contact number of those students who lives in Delhi.
       (Schema: Student (Roll_no, Name, Contact, City))
    5.   What do you mean by Entity?

B.   Do as Directed.   **(10)**
    1.   Raw facts and figures is called………….
       (A) Information (B) Database (C) Data   (D)Instance
    2.   The collection of information stored in a database at a particular moment is called as ……
       (A) schema   (B)Instance of the database   (C) Data domain   (D) Independence
    3.   Full form of DCL is…………
       (A) Data Command Language (B) Data Concurrency Link (C) Data Control Language (D)
         Domain Control Link
    4.   Diagrammatic representation on relationship between entities and its attributes is called…….

    5.   Manager Manages Employees is a
       (A) One-to-One relationship (B) One-to-Many relationship   (C) Many-to-One
       relationship   (D)Many-to-Many relationship
    6.   Diamond shape in E R diagram shows
       (A) Strong Entity   (B) Attribute   (C) Relationship   (D) Weak Entity
    7.   A Primary key
       (A) Can be Null but can't be unique (B) Can be Unique and Null (C) Can't be unique
         and null   (D) Can't be null and has to be unique
    8.   An Attribute having multiple values is called Multi valued attribute.**(True/False)**
    9.   Structure of any database is called Schema.**(True/False)**
    10. Full form of BCNF is Binary Code Normal Form.**(True/False)**

Q.2   Answer the followings.   **(15)**
    1.   What do you mean by RDBMS?   (02)
    2.   Find Attribute(s) which can be primary for the given relation
       R(A,B,C,D)   (02)
       FD{A$\rightarrow$C,B$\rightarrow$D,D$\rightarrow$C,BD$\rightarrow$A}
    3.   What do you mean by Selection and Projection with respect to Relational Algebra?   (02)
    4.   Explain Aggregate functions in SQL.   (03)
    5.   Explain Union and Cartesian product.   (03)

    6.   Explain Three tier architecture of database.   (03)

Q.3 Answer the following. (Any three)   **(15)**

1. What is DBMS? Explain Types of DBMS.
2. What do you mean by Attribute? Explain all types of attributes.
3. What do you mean by Relation? Explain its types.
4. What do you mean by SQL? Explain DDL and DML with examples.

Q.4 Answer the following.

1. What do you mean by E-R Diagram? Explain its components.   **(05)**
2. What do you mean by Normal Forms? Explain all the normal forms.   **(10)**

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OR

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2. What do you mean by Keys? Explain all types of Keys.   **(10)**