**Accurate Institute of Management & Technology, Greater Noida**
**Second Sessional Exam (Even Semester 2020- 21)**
Course: - MCA        Year: - First Year        Semester:-2nd
Subject Name: - Database Management System        Maximum Marks:-30
Paper Code: - KCA-204        Time Duration:-90 minutes
Roll No…………………………….

Note- Attempt all questions.

## SECTION - A

Q1.Attempt all Questions                                    (5×2 = 10 marks)
  (a).Define joins in relations.
  (b).What is cross product?
  (c).What is query language?
  (d).What are set theory operator?
  (e).What is SQL?

## SECTION – B

Q2.Attempt any *one* part of the following                (1 × 3 = 3 marks)
  (a).What are the different types of Integrity constraint in DBMS? Explain.
                    OR
  (b).Define Super key, Candidate key, Primary Key & Foreign key with example.

Q3. Attempt any *one* part of the following                (1 × 3 = 3 marks)
  (a).Discuss extended operators of relational algebra.
                    OR
  (b). What is functional dependency?
Q4. Attempt any *one* part of the following                (1 × 3 = 3 marks)
  (a).What are the differences between DDL and DML command
                    OR
  (b).Explain the different characteristic and Advantages of SQL.
Q5.Attempt any *one* part of the following                (1 × 3 = 3 marks)
  (a).What is difference between inner join and outer join?
                    OR
  (b).What is relational model? Explain the characteristic of relational model.

## SECTION – C

Q6. Attempt any *one* part of the following                (1 × 4 = 4 marks)
  (a).What is Tuple Relational calculus and domain relational calculus.
                    OR
  (b).What are different data types available in SQL? Explain
Q7. Attempt any *one* part of the following                (1 × 4 = 4 marks)
  (a).What is join? What are different types of join?
                    OR
  (b). Consider the following relation. The Primary key is Rollno, Isbn,
       Student(RollNo, Name,Branch), Book(Isbn, Title, Author, Publisher)
       Issue(Rollno, Isbn, te_of_issue). Write The query in Relational algebra
       of the following:
       i.List the Roll Number and Name of All CSE Branch Student.
       ii) Find the name of students who have issued a book of publication 'BPB'.
       iii) List the title and author of all books which are issued by a student name started
       with a.
       iv) List the title of all books issued on or before 20/09/2012.
       v) List the name of student who will read the book of author named 'Sanjeev'