Roll No……..….. **Total No. of Printed Pages: [01]**

Total No. of Questions: [11]

MCA (Semester – 1st)

RELATIONAL DATABASE MANAGEMENT SYSTEM

Subject Code: MCAPS1102

Paper ID: 20270102

Time: 03 Hours **Maximum Marks: 60**

Instruction for candidates:

1. Section A is compulsory. It carries 16 marks. It consists of 4 questions of 4 marks each.
2. Section B consist of 4 questions of 8 marks each. The student has to attempt any 3 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A **(4 marks each)**

Q1. Write the advantages of DBMS? What are the problems in file system data management?

Q2. Explain Data Manipulation Commands with syntax and examples

Q3. Illustrate Group by and having clauses with examples?

Q4. Elaborate the difference between COMMIT and ROLLBACK privileges.

Section – B **(8 marks each)**

Q5. Define Data Model. Explain the importance of data models

Q6. Discuss about Codd's relational database rules in brief

Q7. Let E1 and E2 be two entities in an E/R diagram with simple single-valued attributes. R1 and R2 are two relationships between E1 and E2, where R1 is one1 to-many and R2 is many-to-many. R1 and R2 do not have any attributes of their Apply 3 own. Calculate the minimum number of tables required to represent this situation in the relational model?

Q8. Explain about 3NF and BCNF with relevant table structure

Section – C **(10 marks each)**

Q9. a) Discuss various types of Joins

b) Consider following relational schema STUDENT (RNO,Name,DOB,Percentage,DNO) DEPARTMENT(DNO,DNAME,HEAD) Write relational algerbra expressions:

a) Find students name & course from computer department

b) Get students name who has percentage greater than 70.

Q10. Write short notes on a) Cursor Management b) Triggers c) Exception handling in PL/SQL.

Q11. Consider the following structure for EMPLOYEE. EMP(EMPNO, ENAME, JOB, MGR, JOINDATE, SALARY, COMM, DEPTNO) Write the SQL Queries for the following.

a) Display the list of Employees excluding JOB title as "Salesman".

b) Change the Average Salary for each Department.

c) Change the name of Employee "RAHUL " to "AJAY".

d) Display Employee Names whose name starts with letter "A"