

Student Name: \_\_\_\_\_

Roll No: \_\_\_\_\_

Program: BS(CS),BS(SE)

Semester: Spring-2021

Time Allowed: 2 hours

Course:CS203 Database Systems

CS219 Database Systems

Examination: Mid Term

Total Marks:50 Weightage: 30

Date: May 25, 2021

Instructor Name: Ms. Safia Fatima

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**NOTE:** Attempt all questions.

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### **Question No. 2**

**Attempt Time:** 15 min, **Submission Time:** 5 min

**Marks:** 10

#### **Read the scenario below.**

In a University , there are several departments and each department has a head of department who belongs to Faculty. Department have a name , phone extension , specific mailing address and Students that belong to the department. Students can belong to only one Department at a time and Department can have more than one or no Student

Students and faculty have names and unique identification numbers , with address , age , gender and other information. Student studies different Courses offered by University . Faculty teaches these Courses . In each semester one student can take more than one course and Faculty can teach more than one courses . Faculty members can teach in multiple Departments. Each course can be taught by many faculty members or no one

**You have already implemented the normalized relational ERD of the above scenario. In this question your task is to**

Write the SQL commands to implement the relational ERD with **proper constraints** where needed. Also write **an explanation for each constraint**.