**CSE 304**

**Practice for Entity Relationship Modeling for Section B1**

**Roll Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_**

**University Administration System**

A University e.g. BUET has many offices. Each office is identified by a unique ID. An office has name, location in campus (building name, building number), phone numbers and fax number etc. Under each office there are many job positions. These positions are identified by a job id. It can also have a job name, job description etc. In each office, there are many employees holding different job positions. An employee can have multiple job positions. An employee can be described by an id, name, age, joining date, contact number etc. Employees are classified as technical or non-technical. The qualification and experience of technical employees are different than the non-technical employees. Each employee can be officer or staff and is identified by employee id. There are many rooms belong to the office and each employee is placed either in a single room or shared room. A room is described by floor number, side (east, west etc. ) and identified by room number. University stores employee’s residence phone, date of birth, mobile no, university email, another email address, spouse and children information, salary scale, promotion and medical history. The system will also keep records of an employee’s job history i.e. how many positions one (employee) has worked along with the periods. Each year many employees retire. University provides retirement benefits to the retired employees according to their length of service in University and last post they hold. Each technical employee has a supervisor who is also a technical employee.

Task 1: Find all tentative Entity sets along-with the attributes

Task 2: Find all tentative relationship sets

Task 3: Draw Entity-Relationship Diagram (ERD) for the given University Administration System

Task 4: Transform the ERD into relational schems

Task 5: Write DDL for the relational schema