North South University, Dept. of ECE, **Midterm, Section 2**

**CSE311**, Spring 2023

Duration: 60 minutes, Full Marks: 60

ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Answer the following questions.

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| Q1: A club can have many players and a player can join only one club for a period of time with a start date and end date. After completion of period, the player can join another club. A club has id, name and date of establishment. A Player has id, p-name and date of birth.  Draw ERD and transform the ERD into relation schema.  Q2: All people working in an organization are called employees identified by employee id. All employees must have name, address, mobile and email. An employee must be one of the following: technical or non-technical. Technical employees have the trade and year of experience. Non-technical employees have highest degree and training.  Draw ERD and transform the ERD into relation schema.  Q3: A mother can have many children and a child must have only one mother. A mother has NID, name, street, city. A child have birth registration number (BRN), date of birth, height and weight.  Draw the ERD and transform the ERD into relational schema.  Q4: There are many teachers in the university. Teacher has Id, name, salary. Among the teachers, Head of the department is appointed for a certain period of time (start date and end date). A teacher may be appointed Head many times.  Draw the ERD and transform the ERD into relational schema. | 15  15  15  15 |