Course Code: CSE 237
Course Title: database management system
Assignment
Deadline: 18/12/2019 (Wednesday)

1. **Own Task:** Make Twenty (20) SQL questions including all related topics covered in your class lecture and then write the solutions. You can use any Relational Schema from the text books or webs. Remember your task should be unique as possible.

2. **Design ER Diagram:** Suppose we have the following application that models Football teams, the games they play, and the players in each team. In the design, we want to capture the following:

- We have a set of teams, each team has a Team ID (unique identifier), name, main stadium, and to which city this team belongs.
- Each team has many players, and each player belongs to one team. Each player has an ID (unique identifier), name, DoB, start year, and shirt number that he uses.
- Teams play matches, in each match there is a host team and a guest team. The match takes place in the stadium of the host team.

➢ For each match we need to keep track of the following:
- The date on which the game is played
- The final result of the match
- The players participated in the match. For each player, how many goals he scored, whether or not he took yellow card, and whether or not he took red card.
- During the match, one player may substitute another player. We want to capture this substitution and the time at which it took place.

➢ Each match has exactly three referees. For each referee we have an ID (unique identifier), name, DoB, years of experience. One referee is the main referee and the other two are assistant referee.

Design an ER diagram to capture the above requirements. State any assumptions you have that affects your design. Make sure cardinalities and primary keys are clear.

3. **Convert the E-R diagram (you designed in question no. 2) into a relational schema.**