National University of Computer and Emerging Sciences, Lahore Campus

	Course:	**Database Systems**	**Course Code:**	
	Program:	**BS (Computer Science)**	**Semester:**	**Spring 23**
	Due Date:	**9th May 2023**	**Total Marks:**	**TBD**
	Section:	**BCS-4J**	**Page(s):**	**3**

Instruction/Notes: This assignment is to be submitted as a **hard copy**. It is an **individual assignment**, do not copy the work of your peers. **Use proper assignment papers** for solving your assignment questions, rough pages will not be credited. The assignment must be **hand-written.**

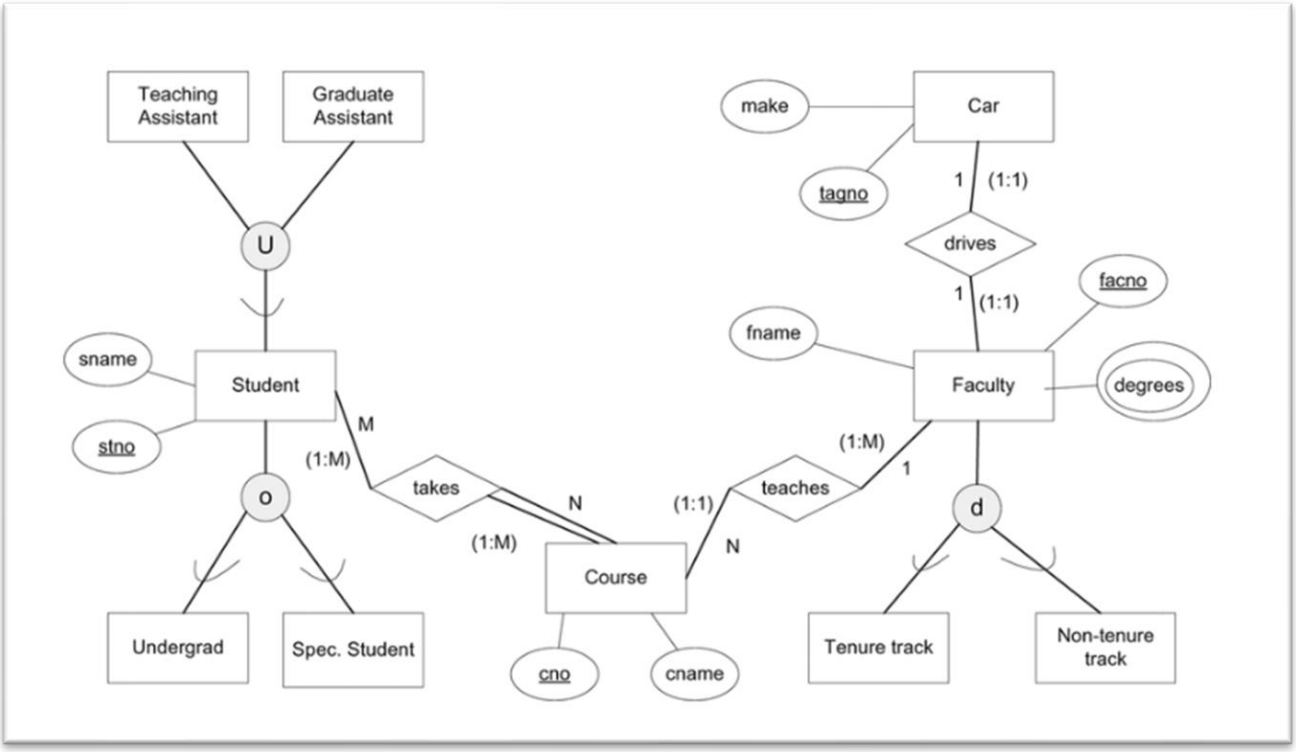
Question1:

The following narrative describes a simplified version of the organization of Olympic facilities planned for the summer Olympics. Draw an EER diagram that shows the entity types, attributes, relationships, and specializations for this application. State any assumptions you make. Also convert the following EER Diagram into a Database Schema

The Olympic facilities are divided into sports complexes. Sports complexes are divided into one-sport and multisport types. Multisport complexes have areas of the complex designated for each sport with a location indicator (e.g., center, NE corner, and so on). A complex has a location, chief organizing individual, total occupied area, and so on. Each complex holds a series of events (e.g., the track stadium may hold many different races). For each event there is a planned date, duration, number of participants, number of officials, and so on. A roster of all officials will be maintained together with the list of events each official will be involved in. Different equipment is needed for the events (e.g., goal posts, poles, parallel bars) as well as for maintenance. The two types of facilities (one-sport and multisport) will have different types of information. For each type the number of facilities needed is kept, together with an approximate budget.

Question2:

Convert the following EER Diagram into a Database Schema. Make sure to reduce redundancy as much as possible. Efficient tables will be given credit only.



Question3:

Convert the following EER Diagram into a Database Schema.