**Tutorial 3**

**Database System and Web (15B1CI312)**

Q1 ER diagram

A university registrar’s office maintains data about the following entities:

1. Courses, including number, title, credits, syllabus, and prerequisites;

2. Course offerings, including course number, year, semester, section number,

instructor(s), timings, and classroom;

3. students, including student-id, name, and program;

4. instructors, including identification number, name, department, and title.

Further, the enrollment of students in courses and grades awarded to students in each course they

are enrolled for must be appropriately modeled.

Construct an E-R diagram for the registrar’s office. Document all assumptions

that you make about the mapping constraints.

Q2. UPS prides itself on having up-to-date information on the processing and current location of each shipped item. To do this, UPS relies on a company-wide information system. Shipped items are the heart of the UPS product tracking information system. Shipped items can be characterized by item number (unique), weight, dimensions, insurance amount, destination, and final delivery date. Shipped items are received into the UPS system at a single retail center. Retail centers are characterized by their type, uniqueID, and address. Shipped items make their way to their destination via one or more standard UPS transportation events (i.e., flights, truck deliveries). These transportation events are characterized by a unique scheduleNumber, a type (e.g, flight, truck), and a deliveryRoute.

Please create an Entity Relationship diagram that captures this information about the UPS system. Be certain to indicate identifiers and cardinality constraints.

Q2. ER Diagram



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