



Ahsanullah University of Science & Technology

Department of Computer Science & Engineering

Subject: Database (CSE3103)

FALL 2020

Quiz: 01

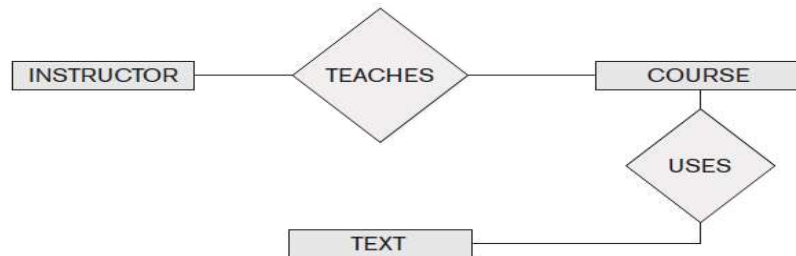
Marks: 20

Time: 30 Min

Instructions:

1. You need to submit this QUIZ as handwritten document. You need to write in formal A4 paper one sided for the answers. Maintain 1.0" inch margin in the left and 1.5" inch margin on the top of the page.
2. **IMPORTANT:** A Top Sheet Need to Make with Mentioning **Name, ID, Couse No, Course Name, Semester -FALL 2020, Date and Signature**. In every page need to have the page number in below. **ID and Signature** need to enclose in the top margin in each of the paper. If you forgot to write in some page that page will not be evaluated.
3. After completion of the task, you need to scan the whole document. Use CamScanner App from mobile, or if you have scanner at home, you can use that too and Upload in PDF format. For capturing picture try to capture with decent light, do not use flash light for capture image/scan. You need to rename your script in ID_Q1_FL2020 (**Example : 180104001_Q1_FL2020**) before uploading the PDF.

1. Consider the partial ER model below. Assume that a course may or may not use a textbook, but that a text by definition is a book that is used in some course. A course may not use more than five books. Instructors teach from two to four courses. **Determine** (min, max) mapping cardinality constraints on this diagram and **redraw** the ER model. State clearly any additional assumptions you make. **4**



2. Consider a **MOVIE** database in which data is recorded about the movie industry. The data requirements are summarized as follows: **10**
 - Each movie is identified by title and year of release. Each movie has a length in minutes. Each has a production company, and each movie has one or more directors and one or more actors appear in it. Each movie also has a plot outline. Finally, each movie has zero or more quotable quotes, each of which is spoken by a particular actor appearing in the movie.
 - Movies can be also classified under one or more genres (such as horror, action, drama, and so forth). This should be done by using ERD features.
 - Actors are identified by name and date of birth and appear in one or more movies. Each actor has a role in the movie.
 - Directors are also identified by name and date of birth and direct one or more movies. It is possible for a director to act in a movie (including one that he or she may also direct).
 - Production companies are identified by name and each has an address. A production company produces one or more movies.

Design an entity-relationship diagram for the MOVIE database. Your design must be legible and clear.

3. Why the new generation is looking forward to the client server model rather than centralized system in database system implementations? **6**