National Institute of Technology Calicut

Department of Computer Science and Engineering

CS3095D DATABASE MANAGEMENT SYSTEMS LABORATORY

S5/S7 B Tech - Monsoon Semester 2022

Mid-Term Exam 1	Part A (10 Marks)	Date: 7/10/2022

Evaluation- I- Set B

Problem Description:

M Series - A music recording company has many units across the country and has decided to store information about the music collections. The collections consist of the albums, artists who perform on the albums and concerts in a database.

- Each unit has an ID, name and city in which it resides. Every unit is managed by exactly one manager and a manager manages only one unit.
- An album has album ID, album name, year released, rating.
- An album contains one or more tracks.
- Each track is on exactly one album. Multiple artists can work on a single track.
- Each track has a track ID, track title, time length, rating, genre.
- An artist makes one or more albums. One or more artists can make an album.
- An artist performs in more than one concert.
- There are a number of employees in each unit. But each employee belongs to only one unit.
- Each employee has an ID, name, role, salary, dob and age. The role defines the designation of each and every employee.
- A manager manages all the employees of the unit.
- Occasionally, the company also conducts concerts and announces the date and venue, artist performing and number of bookings possible (count of passes available). Concerts can be planned simultaneously on the same date. A concert is performed by a single artist.
- Bookings can be made. The price varies depending on whether the booking has been made for a VIP pass or a normal entry.

Considering the above details,

a. Design an ER diagram for the above database. Indicate clearly the cardinality and participation constraints of various relations. Also identify the multivalued, composite, and derived attributes. (5 M)
b. Construct an ER-to-Relation mapping for the same. (5 M)

All the Best