**CSE370 Database System**

**Theory Assignment 2-( Solution)**

**Total Points: 30**

1. Consider the following EER diagram. Map the EER diagram to a **relational database schema**. You must have multiple relations/tables (three or more) in your schema. [15 points]



**Answer:**

**PERSON**

Telephone

Address

SSN

Name

**Volunteer**

**Donor**

**Employee**

SSN

SSN

SSN

Skill

Date\_Hired

SSN

**Item**

**Donates**

ItemNo

ItemNo

SSN

1. Consider the following relational database schema for a chain of hotels:

HOTEL (Hotel-No, Name, City, Country)

ROOM (Room-No, Hotel-No, Type, Price)

GUEST (Guest-No, Name, Address)

BOOKING(Hotel-No, Room-No,Guest-No, Date-from, Date-To)

Write appropriate SQL statements for the following:

1. Write SQL DDL statements to create the tables HOTEL and ROOM. Make sure all integrity constraints are addressed. [5 points]

**Answer:**

CREATE TABLE Hotel (

Hotel\_no int(20) not null,

Name varchar(20) not null,

City varchar(10),

Country varchar(15),

Primary key(Hotel\_no));

CREATE TABLE Room (

Room\_no int(20) not null,

Hotel\_no int(20) not null,

Type varchar(10) not null,

Price int(20) not null,

Primary key (Room\_no),

Foreign key (Hotel\_no) references Hotel(Hotel\_no));

1. List all the guestnames and addresses. [2 points]

**Answer:**

SELECT Guest.name, Guest.address FROM Guest;

1. List the room number and price for all the rooms of type *deluxe* in Hotel Sonargaon in Dhaka,Bangladesh. [3 points]

**Answer:**

SELECT Room.Room\_no, Room.Price

FROM Room, Hotel

WHERE Room.Hotel\_no= Hotel.Hotel\_no

AND type = ‘deluxe’

AND Hotel.Name = ‘Sonargaon’

AND Hotel.City = ‘Dhaka’

AND Hotel.Country = ‘Bangladesh’;

1. List all guest names and addresses who have booked a room of type *suite*.

[5 points]

**Answer:**

SELECT Guest.Name, Guest.address

FROM Guest, Room, Booking

WHERE (Booking.Guest\_no= Guest.Guest\_no)

AND (Booking.Room\_no=Room.Room\_no)

Room.type= ‘deluxe’;