DKT 223 DATABASE SYSTEM

ASSIGNMENT 2

Answer all questions. To answer these questions, you may either

    i.   type / use any word processing software (e.g. Microsoft Word) and save as .pdf
    ii.   write / draw on a piece of paper and scan / snap the answer

You must write your name and matric number on each page of your answer sheet.

Submit your assignment via Google Classroom **before 16 April 2020 16:30.**

QUESTION 1

Draw ER diagram or relational diagram for this scenario:

The XYZ chain of pharmacies has offered to give you a free lifetime supply of medicine if you design its database. Given the rising cost of health care, you agree with the offer. Here is the information that you have gathered. **Patients** are identified by PatientID. Other attributes are names, addresses and ages. **Doctors** are identified by DoctorID. Other attributes are name, specialty and years of experience. Doctors prescribe drugs for patients. A doctor could prescribe one or more drugs for several patients and a patient could obtain prescriptions from several doctors. Each description has a date and a quantity associated with it. For each **drug**, the trade name (e.g. Panadol, Dequadine, etc.) and formula must be recorded. Each **pharmacy** has a unique name, address and a phone number. Each pharmacy sells several drugs and has a price for each. A drug could be sold at several pharmacies and the price could vary from one pharmacy to another

    a. From the diagram, identify the foreign key.
    b. Produce some sample tables for these relations that observe the relational integrity rules. Suggest some enterprise constraints that would be appropriate for this schema.

(20 marks)

QUESTION 2

a. The following tables form part of a database held in a relational DBMS. Based on the following table structure, create SQL statement for each of the following questions.

STUDENT

MatricNo	StudentName	Address	ProgrammeID
P001	Ahmad Ali	Kuala Lumpur	AT20
P002	Saadiah Hassan	Batu Pahat, Johor	AT14
P003	Chong Wai	Ipoh, Perak	AT20

LECTURER

StaffNo	StaffName	RoomNo	FacultyID
A0011	Halisa Abdul Hamid	3B-12	FTMK
A0003	Mohd Kamal Ariffin	2A-11	FTMK
A0034	Vikneswary a/p Marimuthu	2B-02	FST

APPOINMENT

ApmntNo	MatricNo	StaffNo	ApmntDate	ApmntTime
1	P003	A0011	3/1/2019	3:00 pm
2	P003	A0003	6/5/2019	3:00 pm
3	P001	A0011	5/6/2019	9:00 am
4	P002	A0034	3/7/2019	4:00 pm

i. List full details of all students under programme AT20, alphabetically ordered by name.

(3 marks)

ii. How many students register for Appointment System?

(3 marks)

iii. List the names and matric number of all students register for appointment on 3:00 pm.

(3 marks)

iv. List the names of students register for appointment with Mdm Halisa.

(3 marks)

v. Insert new record into table Appointment using following data.
    ApmntNo = 5
    StudentName = Ahmad Ali
    StaffName = Mohd Kamal Ariffin
    ApmntDate = 6/5/2019
    ApmntTime = 9:00 am

(4 marks)

vi. Change the record of student named "Chong Wai" into new data as following:
    StudentName = Chong Wai Chi
    Address = Alor Star, Kedah
    ProgrammeID = AT24

(4 marks)