

Question 4: (12 Marks)

Given the following schema :

Doctor(DId, Dname, Specialty)
Patient(PId, Pname, Age, Weight)
Diagnose(PId, DId, date, description)
Prescription(PId, MId, date, comment)
Medicine(MId, MName, type)

Write down the following queries in **SQL**:

1. List the doctors who are specialist in Diabetes.

```
select Dname
from Doctor
where Specialty like "%diabetes %"
```

2. List the patients of Dr. Mshari

```
select Pname
from Patient P inner join Diagnose
on P.PId = D.PId
inner join Doctor on Doctor.DId = Diagnose.DId
where Dname like "%Mshari%"
```

3. Retrieve the patients who were diagnosed by Dr. Mshari and Dr. Ghamdi

```
select Pname
```

```

from Patient P inner join Diagnose
on P.PId = Diagnose.PId
inner join Doctor on Doctor.DId = Diagnose.DId
where Pname like "%Msbari%"

```

Intersect

```

select Pname
from Patient P inner join Diagnose
on P.PId = Diagnose.PId
inner join Doctor on Doctor.DId = Diagnose.DId
where Pname like "%Garnadi%"

```

4. Retrieve all the medicine that were taken by "Fadh Zahrani" before 10/4/2016 and prescribed before 1/4/2016

```

select MName
from MedicineM inner join Prescription Pre
on m.mId = Pre.MId inner join Patient P on P.PId = Pre.PId
where Pname like "%Fadh%Zahrani%"
and date < "1/4/2016"

```

6. List for each specialty and for each doctor the number of patient who were diagnosed.

```

select specialty, Dname, count(*)

```

Patients
are in

from Doctor D inner join Diagnose dia
on D.DId = dia.DId

group by specialty, Dname

Patients
are in
diagnose

5. Retrieve the number of patients who were diagnosed by Dr. Mshari before the 10/5/2016

select count(*)

from Doctor D inner join Diagnose Dia
on D.DId = Dia.DId

where Dname like "%mshari%"
and Date < "10/5/2016"