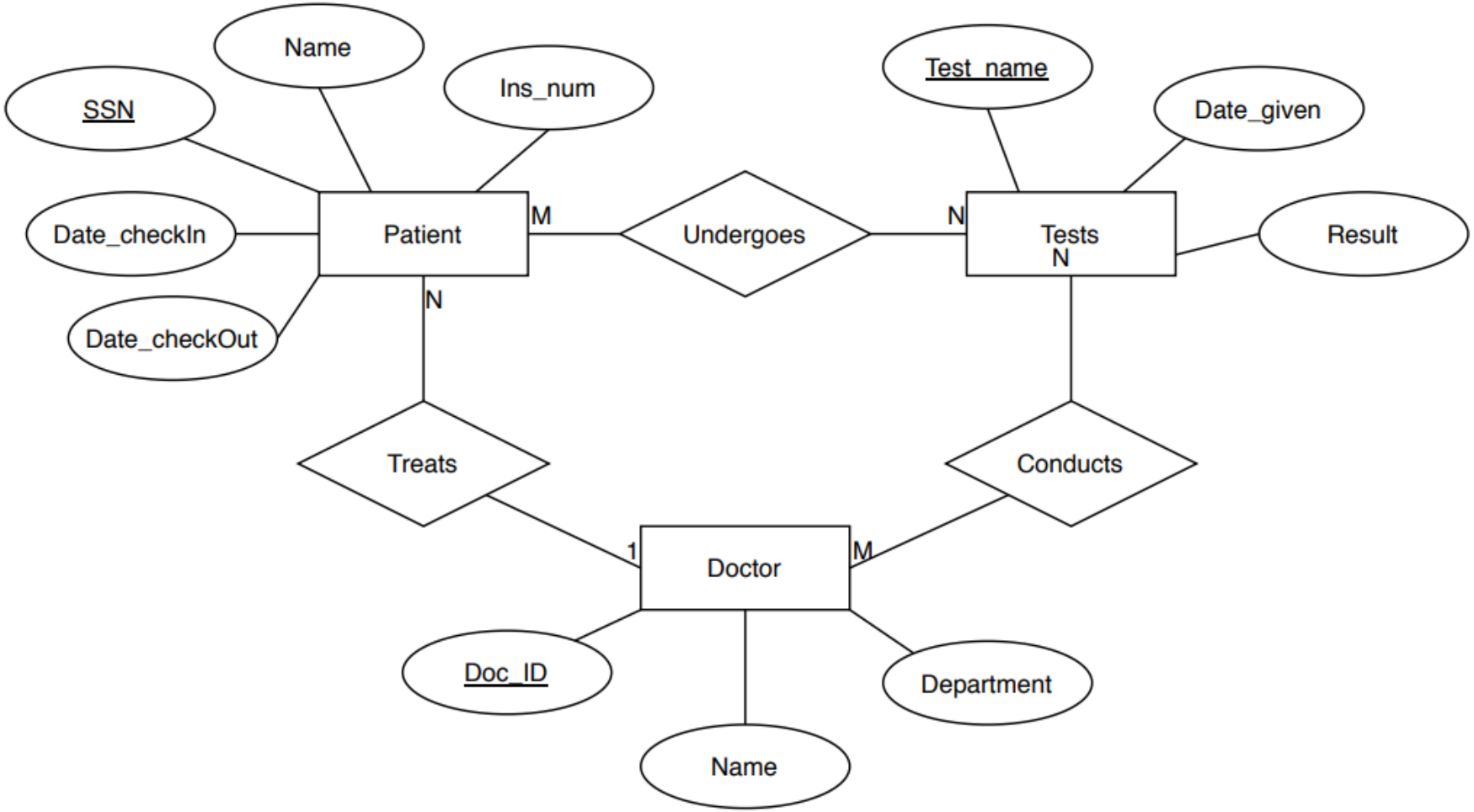
ASSIGNMENT 5

EPPS 6354

Rita Savill

Question 2


Name
SSN
Ins_num
Test_name
Date_given
Date_checkIn
Patient
M
Undergoes
N
Tests
N
Result
Date_checkOut
N
Treats
Conducts
1
Doctor
M
Doc_ID
Department
Name

Question 3

Weak entity sets can easily be converted to strong entity sets, although this is not always advantageous. Weak entity sets are a way to show that a table has a dependent relationship with another relationship. The biggest advantage of leaving weak entity sets however relates to data storage. Giving every relation a primary key even if it is unnecessary leads to data redundancy which always takes up space.

Question 4a - i

```
SELECT e.ID, e.person_name

FROM employee AS e, works AS w, company as c

WHERE e.ID = w.ID AND w.company_name = c.company_name

AND e.city = c.city;
```

Question 4a - ii

```
SELECT e.ID, e.person_name
FROM employee AS e, employee AS em, manages AS m
WHERE e.ID = em.ID AND em.ID = m.ID AND e.street = em.street
AND e.city = em.city;
```

Question 4a - iii

```
SELECT ID
FROM works as w
WHERE salary > (SELECT AVG(salary)
                FROM works AS wa
                WHERE w.company_name =
                wa.company_name);
```

Question 4b

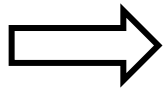
This query lists a course twice because it had two sections in Spring 2017 with the same instructor. You can use select distinct to only show the course name once.

```
select *
from course as c natural join teaches as t natural join instructor as i
where t.semester = "Spring" and t.year = 2017
```

course_id	title	dept_name	credits	ID	sec_id	semester	year	name	salary
CS-190	Game Design	Comp. Sci.	4	83821	1	Spring	2017	Brandt	92000
CS-190	Game Design	Comp. Sci.	4	83821	2	Spring	2017	Brandt	92000
EE-181	Intro. to Digital Systems	Elec. Eng.	3	98345	1	Spring	2017	Kim	80000

```
select distinct c.title, i.name
from course as c natural join teaches as t natural join instructor as i
where t.semester = "Spring" and t.year = 2017
```

name	title
Brandt	Game Design
Brandt	Game Design
Kim	Intro. to Digital Systems



name	title
Brandt	Game Design
Kim	Intro. to Digital Systems