

1. a. SELECT DISTINCT S. Sname FROM S JOIN SP
ON S.sid = SP.sid JOIN P ON SP.pid = P.pid
WHERE P.color = 'red';

b. SELECT DISTINCT S.sid FROM S JOIN SP
ON S.sid = SP.sid JOIN P ON SP.pid =
P.pid WHERE P.color IN('red', 'green');

c. SELECT DISTINCT S.sid FROM S LEFT JOIN
SP ON S.sid = SP.sid LEFT JOIN P ON
SP.pid WHERE P.color = 'red' OR S.address =
'21 George Street';

d. SELECT DISTINCT S. Sname FROM S LEFT
JOIN SP ON S.sid = SP.sid LEFT JOIN
P ON SP.pid = P.pid
WHERE P.color = 'red' OR S.address =
'21 George Street';

e. SELECT DISTINCT sid FROM SP WHERE pid
IN (SELECT pid FROM P WHERE color = 'red')
AND sid IN (SELECT sid FROM SP WHERE
color = 'green');

f. SELECT DISTINCT S1.sid AS sid1, S2.sid
AS sid2 FROM SP S1 JOIN SP S2 ON
S1.pid = S2.pid WHERE S1.cost > S2.cost;

g. SELECT DISTINCT S.sid FROM S JOIN SP
ON S.sid = SP.sid
JOIN P ON SP.sid = P.sid WHERE NOT
EXISTS (SELECT 1 FROM SP SP JOIN P P ON
SP.pid = P.pid WHERE SP.sid = S.sid
AND P.color <> 'red');

h. SELECT S.sid FROM S WHERE NOT EXISTS (
SELECT pid FROM P EXCEPT SELECT pid
FROM SP WHERE SP.sid = S.sid);

2. a) SELECT * FROM flight WHERE dest = 'New Delhi';

b) SELECT * FROM flight WHERE src = 'Chennai' AND
dest = 'New Delhi';

c. SELECT DISTINCT b.fid FROM booking
b JOIN flight f ON b.fid = f.fid
WHERE b.pid = 123 AND f.dest = 'Chennai'
AND f.fdate < '2020-11-06';

d) SELECT DISTINCT p.pname FROM passengers
p JOIN booking b ON p.pid = b.pid;

e) SELECT p.pname FROM passengers p LEFT
JOIN booking b ON p.pid = b.pid WHERE
b.pid IS NULL;

f.) SELECT a.aname FROM agency a JOIN
passenger p ON a.acity = p.pcity WHERE
p.pid = 123;

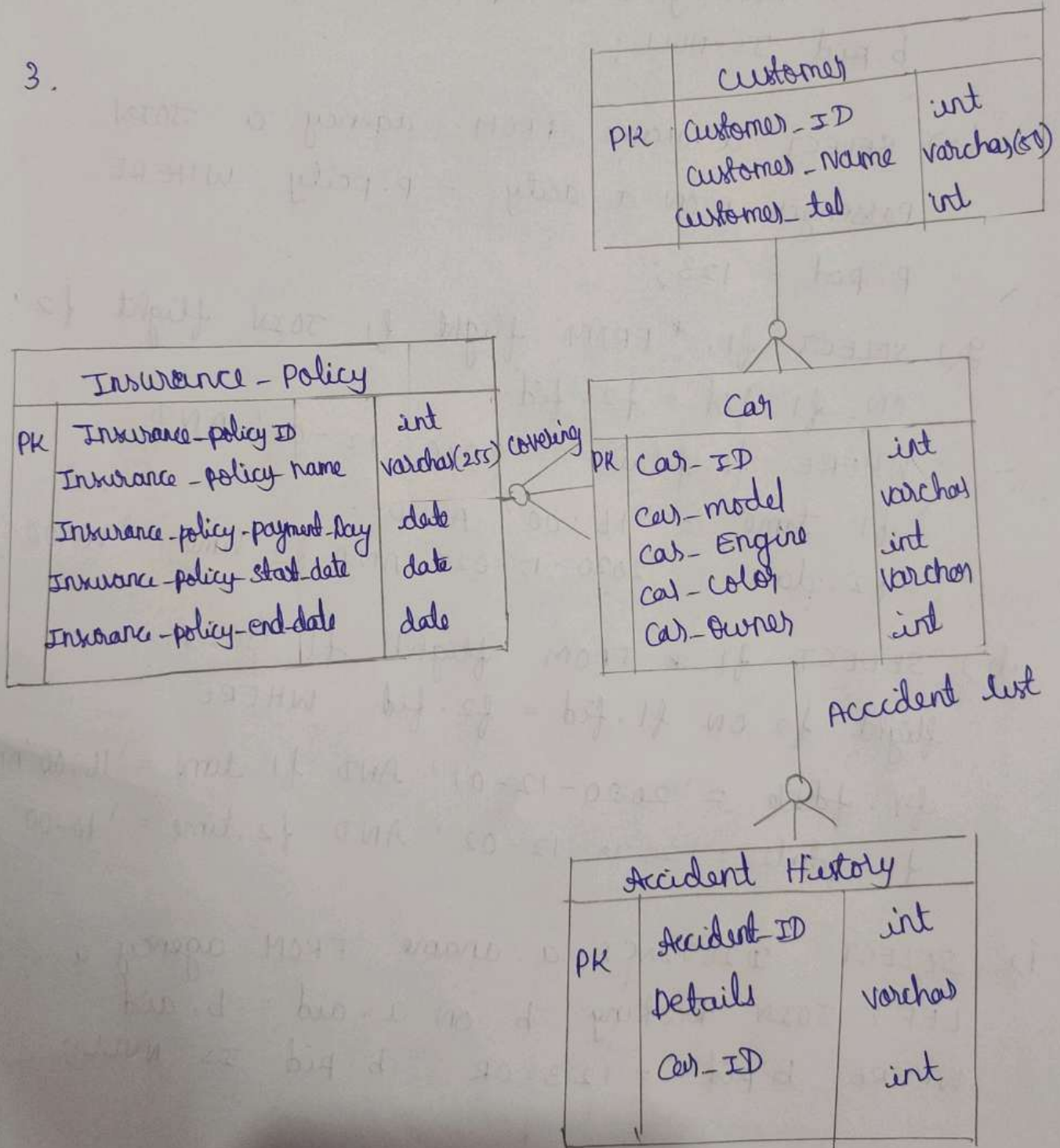
g.) SELECT f1.* FROM flight f1 JOIN flight f2
ON f1.fid = f2.fid
WHERE f1.fdate = '2020-12-01' AND
f1.time = '16:00' AND
f2.date = '2020-12-02' AND f2.time = '16:00';

h.) SELECT f1.* FROM flight f1 JOIN
flight f2 ON f1.fid = f2.fid WHERE
f1.fdate = '2020-12-01' AND f1.time = '16:00' AND
f1.fdate = '2020-12-02' AND f2.time = '16:00';

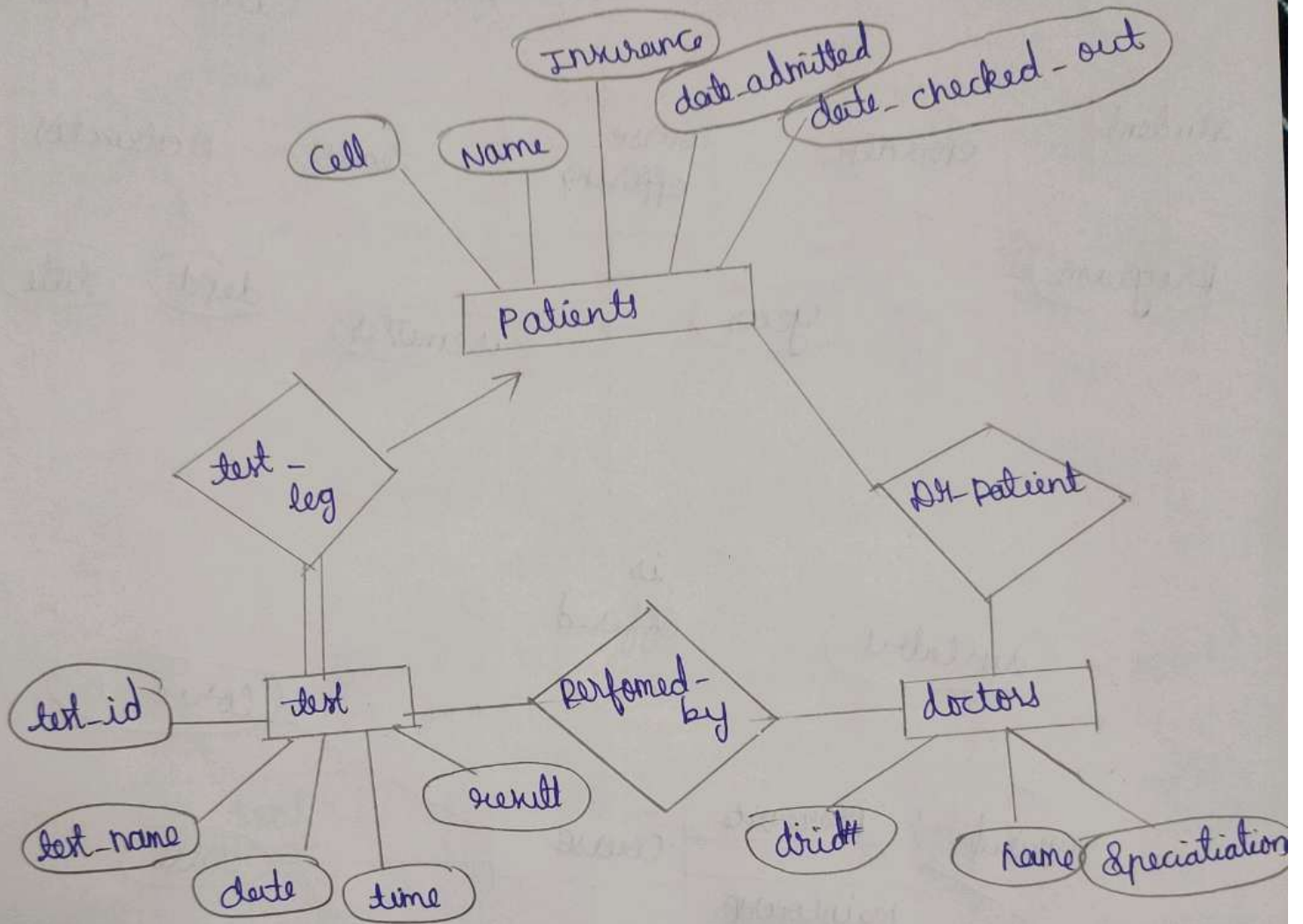
i) SELECT DISTINCT a.aname FROM agency a
LEFT JOIN booking b ON a.aid = b.aid
WHERE b.pid = 123 OR b.pid IS NULL;

j.) SELECT DISTINCT P.* FROM Passenger P
 JOIN booking b ON P.pid = b.pid JOIN
 agency a ON b.aid = a.aid WHERE
 a.aname = 'Jet' AND P.pgender = 'Male';

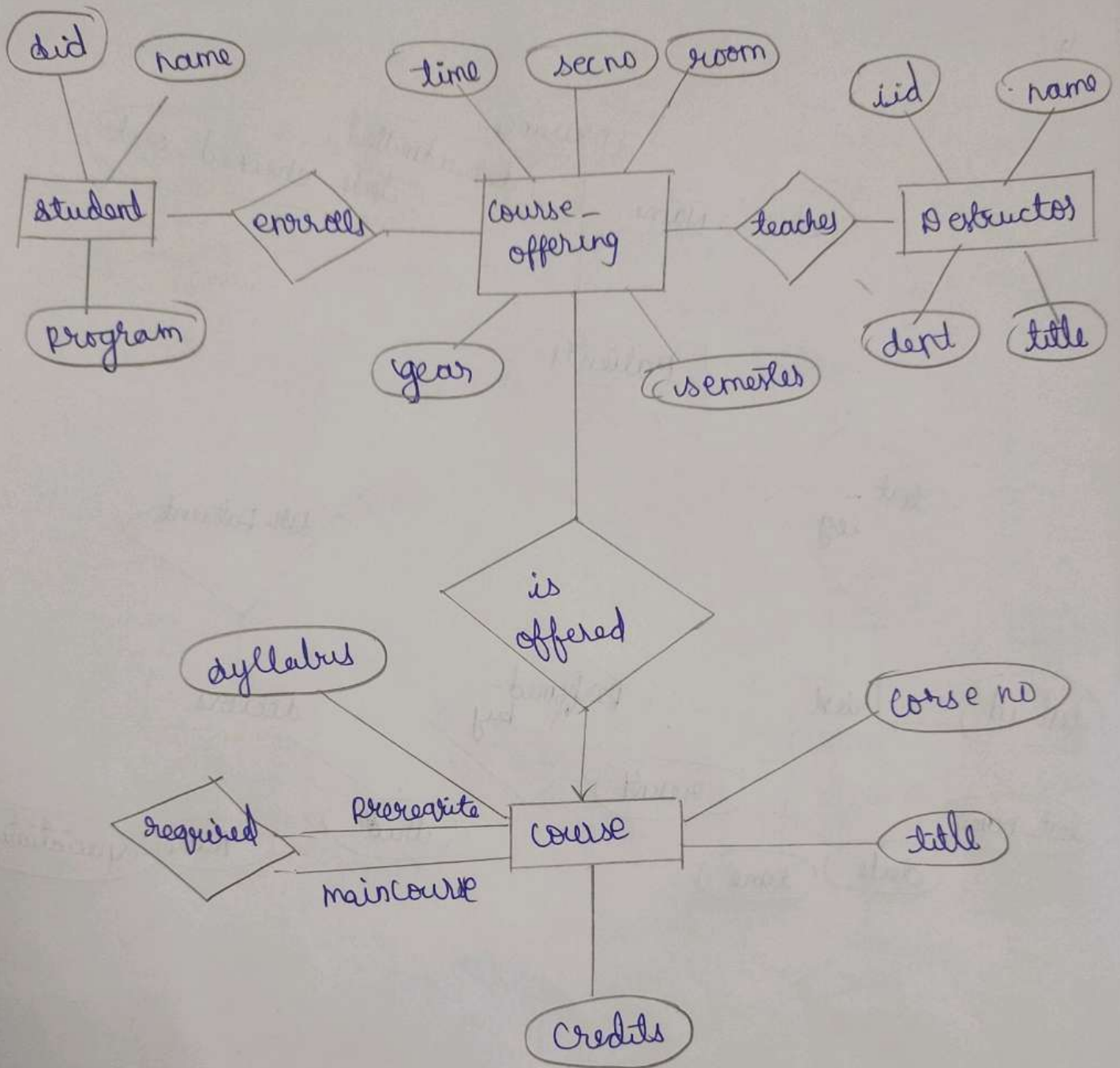
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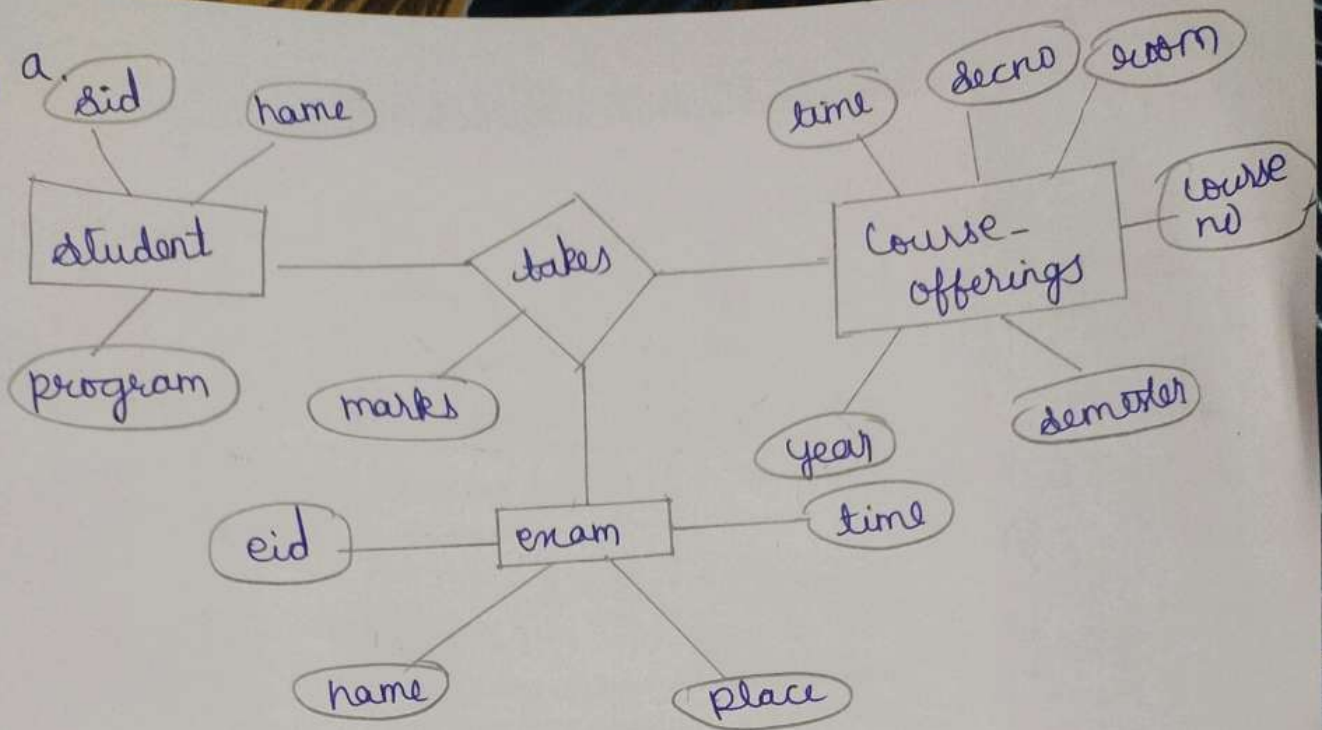
4.



5.



6.) a.



b.)

