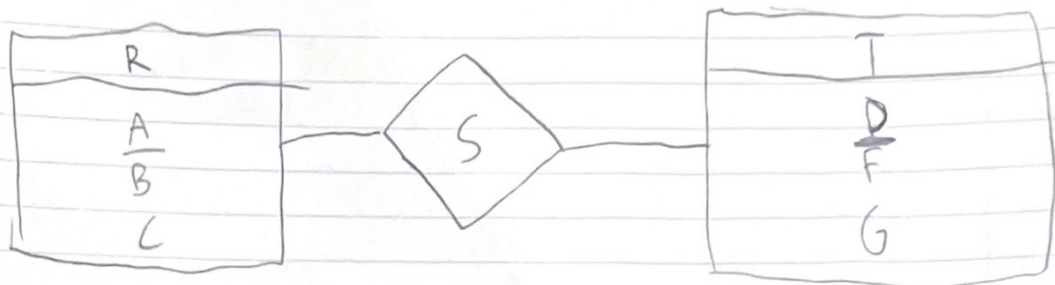


8.1



8.2

CREATE TABLE SUPPLIER (

```

    sid          int,
    sname        varchar(100),
    address      varchar(100),
    PRIMARY KEY (sid),
    FOREIGN KEY sid REFERENCES
    CATALOG(sid);

```

);  
CREATE TABLE PART (

```

    pid          int,
    pname        varchar(100),
    color        varchar(100),
    PRIMARY KEY (pid),
    FOREIGN KEY pid REFERENCES
    CATALOG(pid);

```

8.2 CREATE TABLE CATALOG (

sid int,  
pid int)

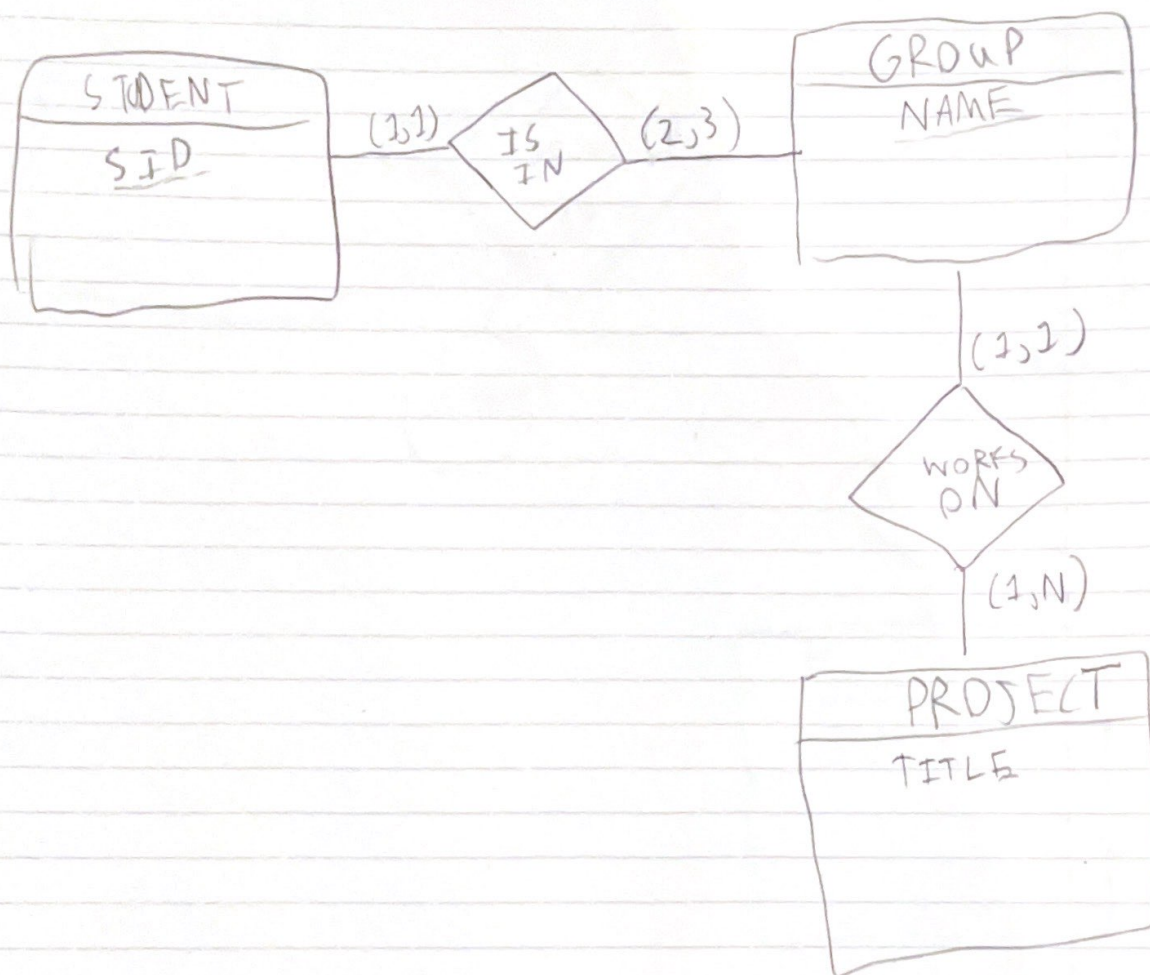
cost DEC(10,2),  
PRIMARY KEY(sid,pid).  
);

8.3

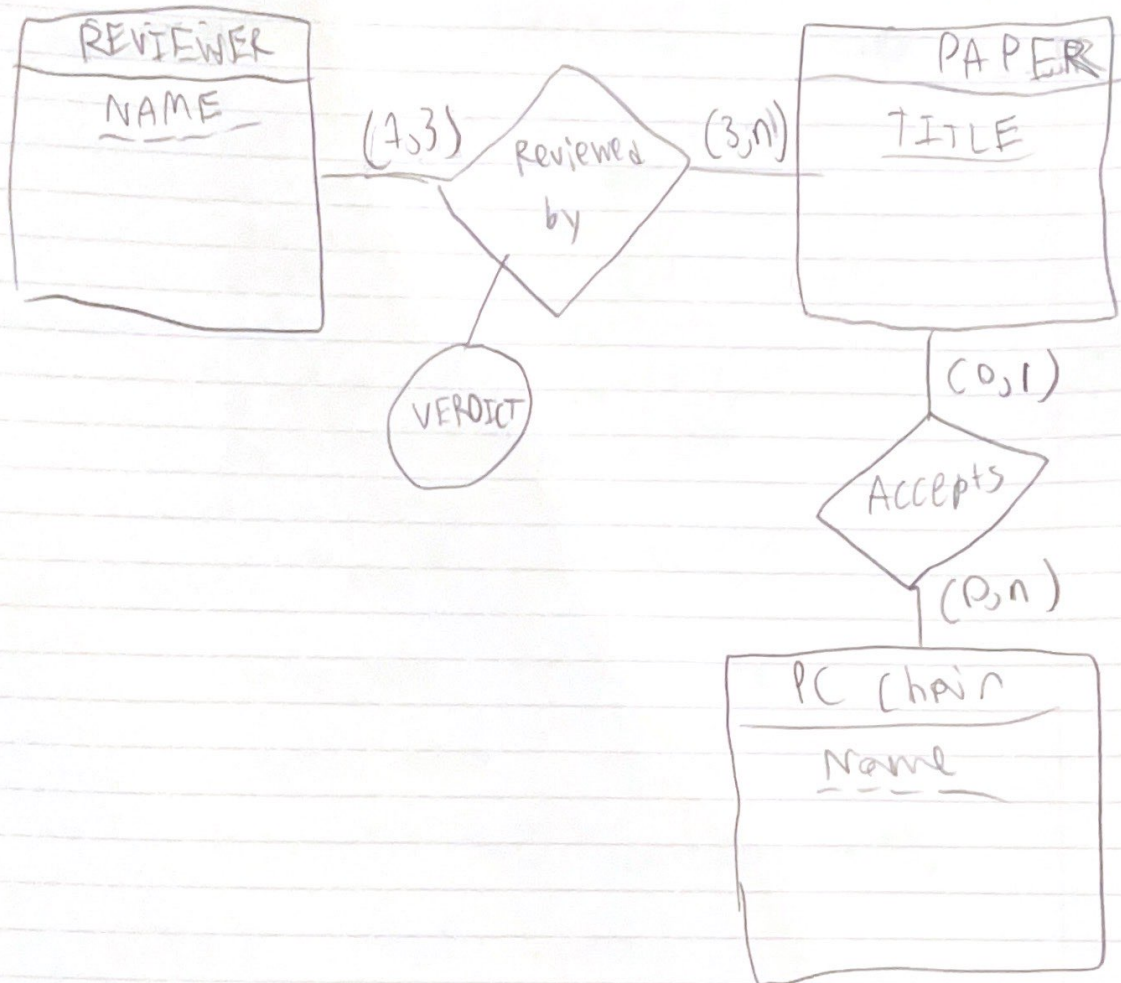
SELECT pid  
FROM PART, CATALOG  
WHERE color='red' OR color='green'



q.1



9.2





Q10.1

CREATE TABLE EMPLOYEE (

Emp-ID int(100),  
E-name varchar(100),  
health varchar(20),  
gender varchar(10),  
DOB varchar(20),  
disability varchar(20),  
PRIMARY KEY(Emp-ID)  
);

CREATE TABLE COMPANY (

company-name varchar(100),  
tax-ID int(10),  
company-status varchar(100),  
PRIMARY KEY(company-name);

CREATE TABLE Lives (

Emp-ID int(100),  
street varchar(100),  
city varchar(100),

PRIMARY KEY(Emp-ID)  
FOREIGN KEY Emp-ID REFERENCES  
EMPLOYEE(Emp-ID)  
);

10.1 CREATE TABLE works (

Emp-ID                      int,  
Company-name              varchar(100);  
Salary                      dec(9,2),

PRIMARY KEY (Emp-ID, Company-name)

FOREIGN KEY (Emp-ID) REFERENCES

Employee (Emp-ID)  
FOREIGN KEY Company-name REFERENCES  
Company (Company-name)

);

CREATE TABLE Located-in (

Company-name              varchar(100),  
City                          varchar(30),

PRIMARY KEY (Company-name)

FOREIGN KEY Company-name REFERENCES  
COMPANY (Company name)

);



10.2

A.  $\pi_{E\text{-name}} (\sigma_{\text{gender} = \text{'female'} \wedge \text{company-name} = \text{'Ruston Bank'}} (EMPLOYEE \times COMPANY))$

B.

$\pi_{\text{company-name}} ( (\pi_{\text{city} = p1, \text{city}} (COMPANY \times \text{located-in})) \times (\pi_{p1} (\pi_{\text{city}} (\sigma_{\text{name} = \text{'Ruston Bank'}} (COMPANY \times \text{located-in}))))$

C.

$\pi_{E\text{-name}} (\sigma_{\text{Employee EMP-ID} = \text{Works EMP-ID} \wedge \text{company-name} = \text{'Ruston Bank'}} (EMPLOYEE \times WORKS \times COMPANY))$

d