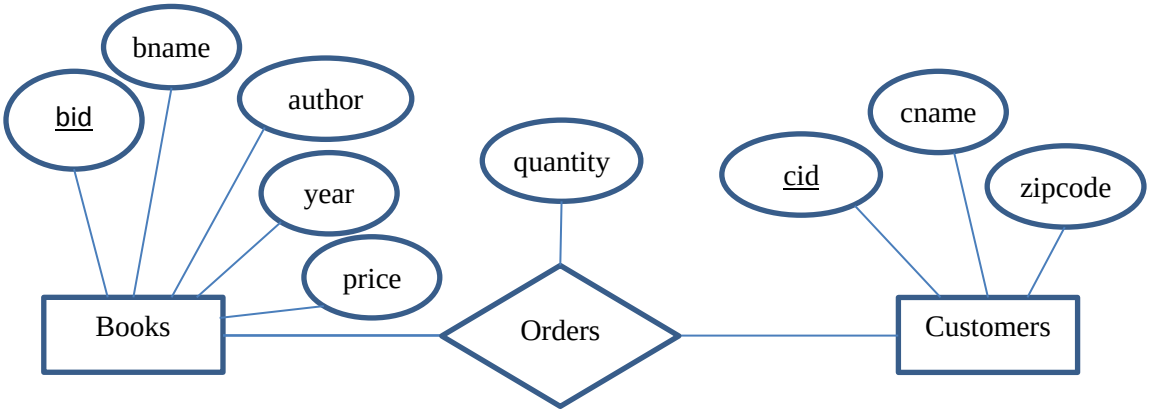
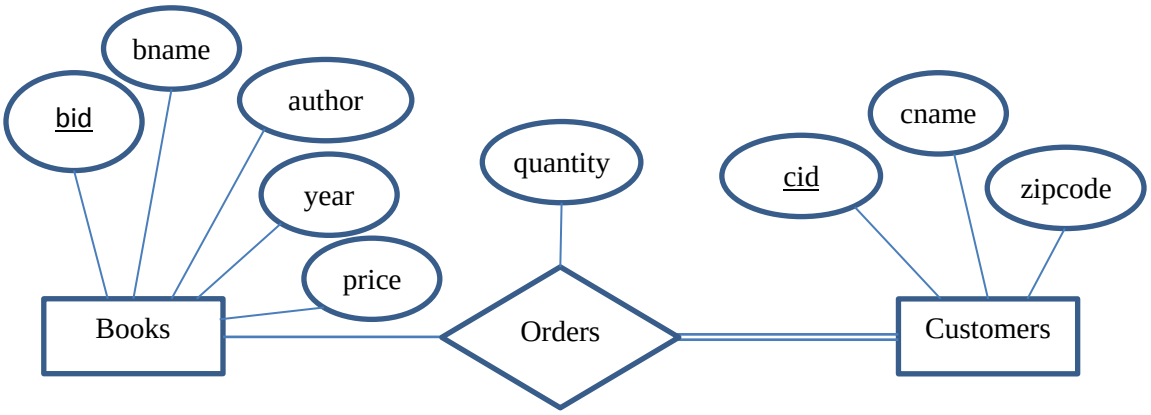
Q1.

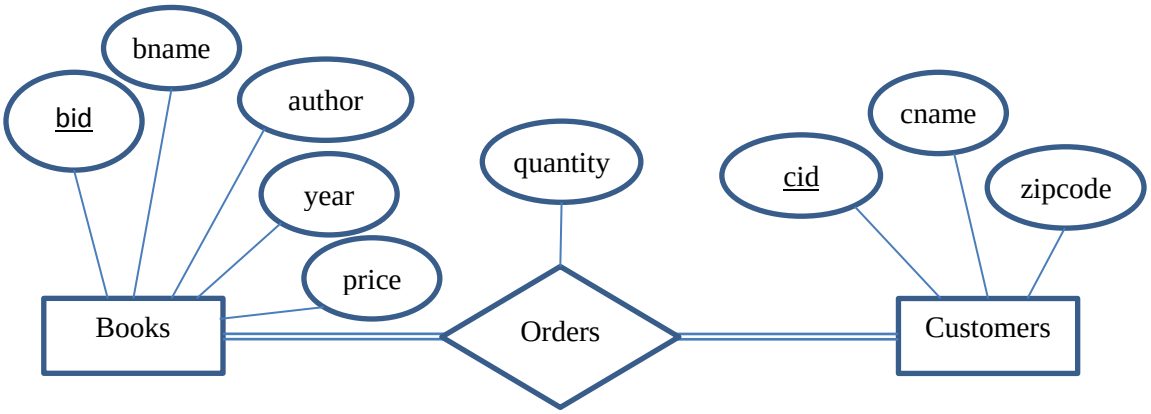
a)


bname
bid
author
year
price
quantity
cid
cname
zipcode
Books
Orders
Customers

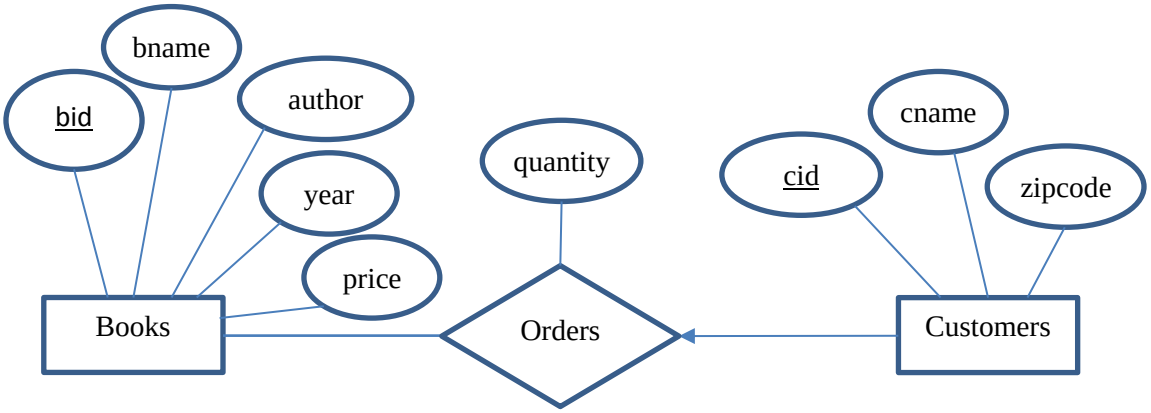
b)


bname
bid
author
year
price
quantity
cid
cname
zipcode
Books
Orders
Customers

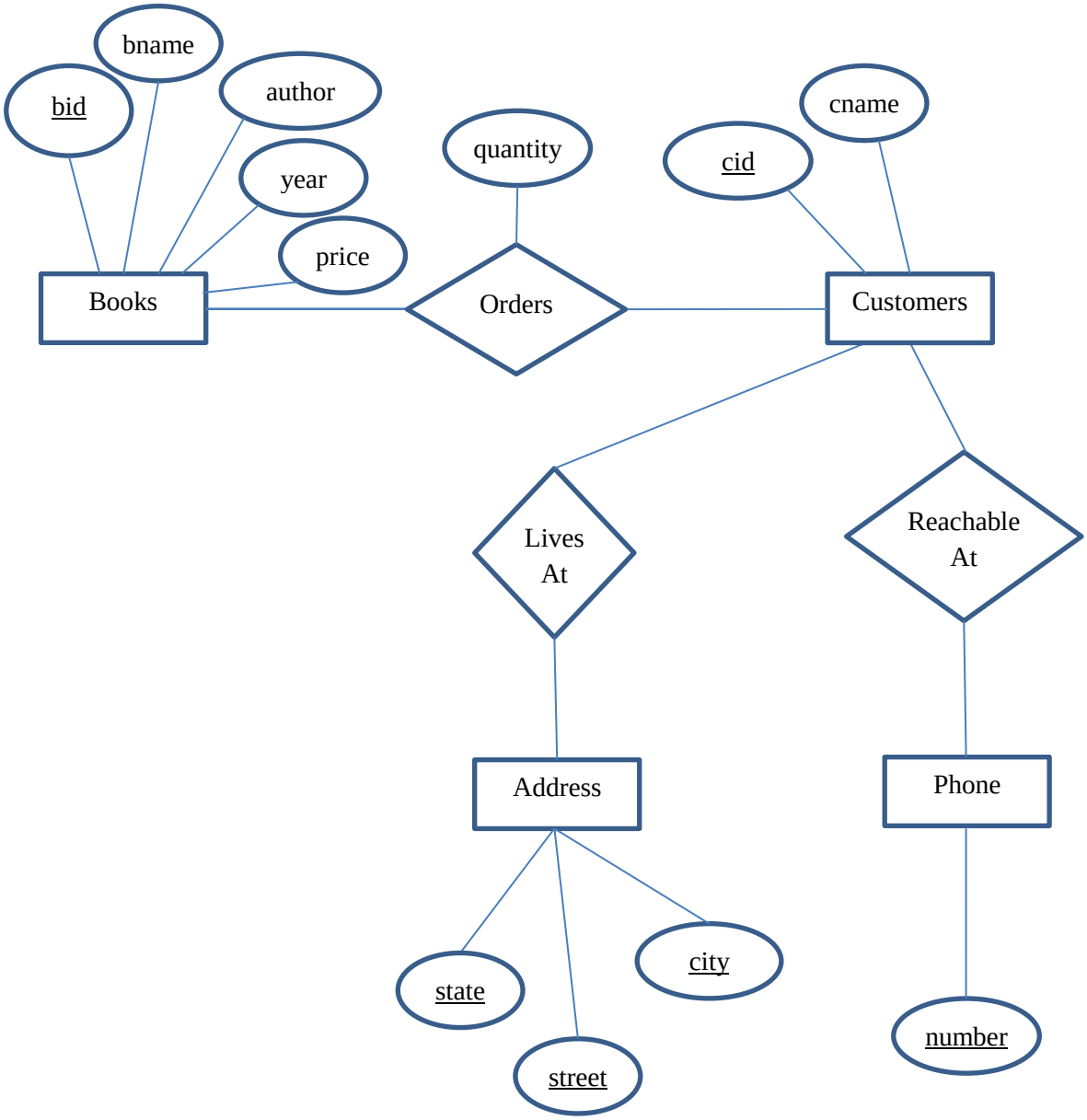
c)


bname
bid
author
year
price
quantity
cid
cname
zipcode
Books
Orders
Customers

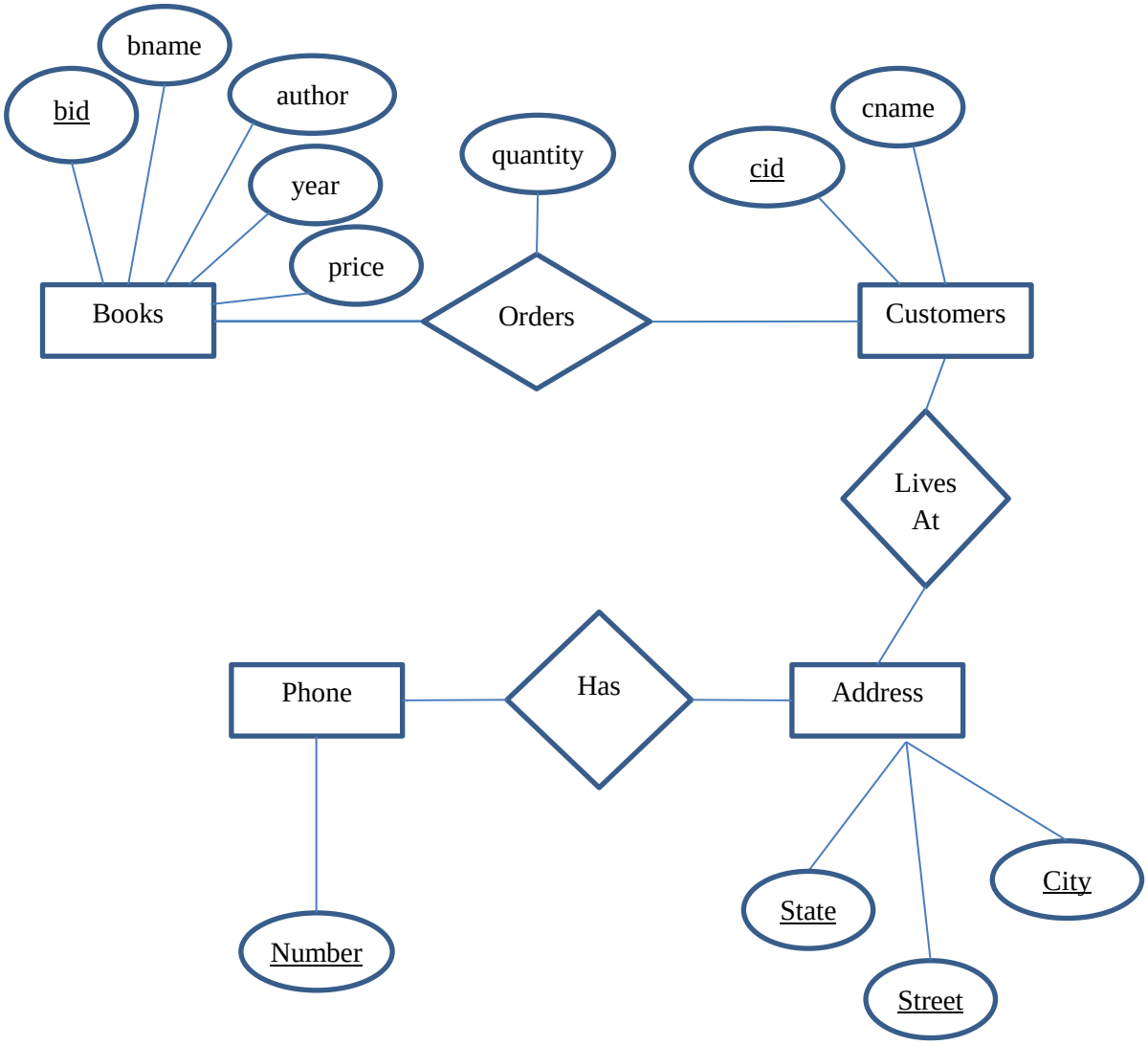
d)


bname
bid
author
year
price
Books
quantity
Orders
cname
cid
zipcode
Customers

e)


bname
bid
author
year
price
Books
quantity
Orders
cid
cname
Customers
Lives At
Reachable At
Address
Phone
state
city
street
number

f)


bname
bid
author
year
price
Books
quantity
Orders
cid
cname
Customers
Lives
At
Phone
Has
Address
Number
State
Street
City

Q2.

a) The set with all tuples (a,b) where one or both of the conditions below are true:
   a = 10 and b is any integer or null.
   a is any integer or null and b = 20.

b) The set containing exactly the tuple (10,20).
c) The set with all tuples (a, b) where a is any integer and is not null, and b is any integer or null.
d) The set of all tuples (a, b) where a and b are the same integer that is not null.

Q3.

a)

```
CREATE VIEW BestSeller(BookID, Title, Author, Amount) AS

SELECT B.bid, B.bname, B.author, SUM (B.price * O.quantity)

FROM Books B, Orders O

WHERE B.bid = O.bid

GROUP BY B.bid, B.bname, B.author

HAVING SUM(O.quantity) > 100000;
```

b)

```
SELECT BS.BookID, BS.Title, BS.Author

FROM BestSeller BS

WHERE BS.Amount = (SELECT MAX(Amount) from BestSeller);
```

c)

```
SELECT BS.Author
FROM BestSeller BS
WHERE BS.Author IN (
    SELECT TMP.Author
    FROM(
            SELECT BS1.Author, SUM(BS1.Amount) AS Revenue
            FROM BestSeller BS1
            GROUPBY BS1.Author) TMP
    WHERE TMP.Revenue = (SELECT (MAX(Revenue ) FROM TMP))
    );
```