B191143CS Panasa Teja

Part A

1. A Relationship is an association that Exists between 2 entities.

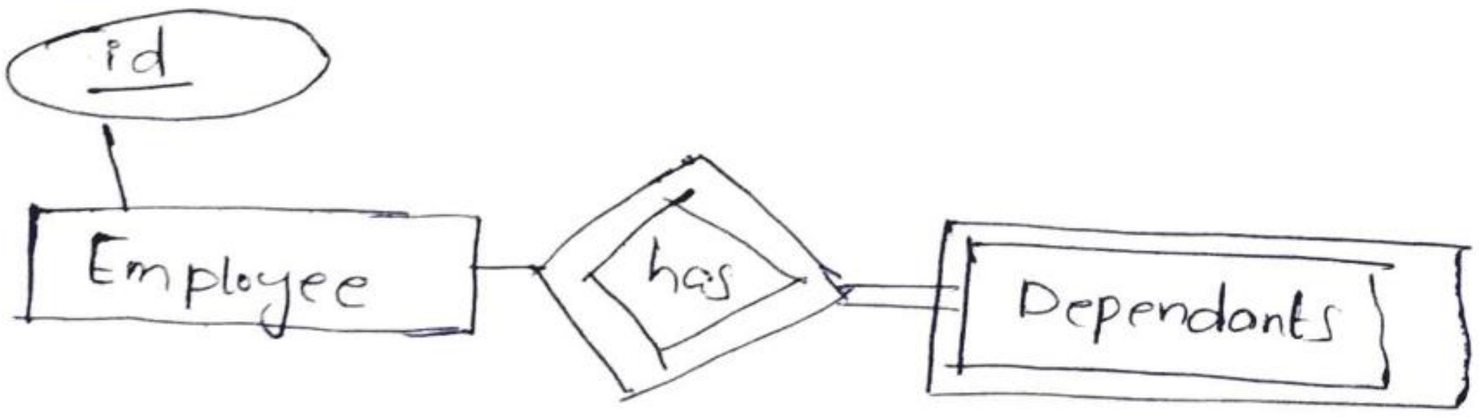
2. Attributes . is a property or characteristic of an entity

Part - B

10. No proper subset is a Superkey. Candidate is a Superkey whose proper subset is not a Superkey.

2. A weak entity set that doesnot have a primary key . It is represented by double rectangular box and the identifying relationships are represented by double diamond.

Eg:



Weak entity always has total participation

3. There are following joins

1. P Union Q
2. P intersection Q
3. P-Q
4. Q-P
5. P Natural join Q
6. P left Outer Join Q
7. P/Q

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1. $P \cup Q$

max = x+y

min = 0 (∵ taking x=y=NULL)

2. $P \cap Q$

max = x (x<y)

min = 0 (∵ x=y=NULL)

3. $P - Q$

max = x (∵ if they are disjoint we will all tuples of P)

min = 0 (∵ x=y=NULL)

4. $Q - P$

max = y (∵ if they are disjoint)

min = 0 (∵ x=y=NULL)

5. P Natural Join Q

max = x * y (Carlesian product if no matching key constraints)

min = x (x<y)

6. P left Outer Join Q

max = x (from left table)

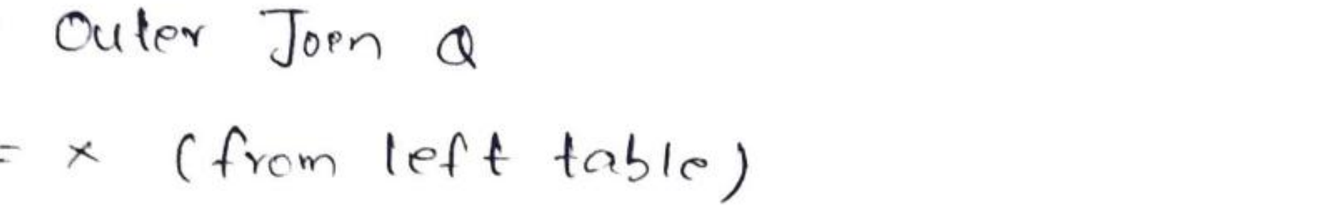
min = 0 (x=0)

7. P / Q

max = x (y=0)

~~min~~ = 0

(4)



For passport ~~it is~~ Person, every person has only 1 passport and if passport Exist means then it has a person available to it and Viseversa. Excluding no special cases (Person has may be have passport ~~nor~~ may not be).

So It is 1:1 (or) one to one

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Part C

(f) True. when an entity is related with itself is known as recursive relationship.

(2) (i) True

Entities are represented by means of their properties called attributes. All Attributes have values.

(ii) True

Like entities, relationships can have attribute. we define a sale to be a relationship between a customer entity and a given number of the product entity that exists a particular date and time.

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