Qu1: Based of the following tables, which of the following SQL statements will fnd the number of diffrenet seasons that each has played for:

PlayedFor

Player	Team	Season
Sam	Red	2000
Jill	Blue	2000
Tim	Red	2005
Tim	Red	2006
Tim	Green	2007

ManagedBy

Manager	Team	Season
Harry	White	2000
Jimmy	Red	2005
Jimmy 💮	Red	2006
Barry	Green	2006
Alice	Green	2007

select one:

1. SELECT Player, COUNT(DISTNCT Season)

FROM PlayedFor GROUP BY Player;

- **2.** SELECT Player, Total(DISTINCT Season) FROM PlayedFor GROUP BY Player;
- **3.** SELECT Player, COUNT(DISTINCT Team) FROM PlayedFor GROUP BY Player;
- **4.** SELECT Player, COUNT(DISTINCT Season) FROM PlayedFor GROUP BY Season;

Qu2:

ID	Name	Address	Department
1	Samer	Amman	CS
2	Omar	Amman	CIS
3	Ibrahim	Irbid	CIS
4	Ali	Amman	CS
5	Salem	Zarqa	IT
6	Suha	Irbid	IT
7	Faris	Jarash	CIS

Select department, address, count(*)

from studet

Group by deparment, address

Select one:

- 1. 4 records
- **2.** 5 records
- **3.** 6 records
- **4.** 7 records

Qu3:

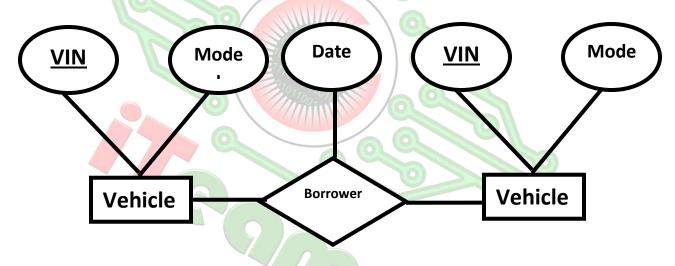
Elimination of 'transitive functional dependency' is a necessary step for the database to be in:

Select one:

- **1.** 3rd NF
- 2. 1st NF
- **3.** 4th NF
- 4. 2nd NF

Qu4:

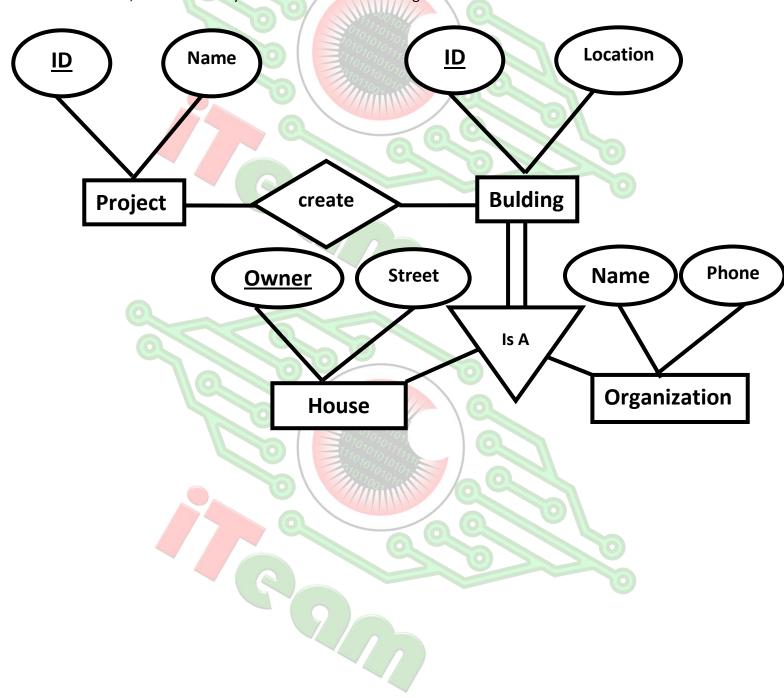
How many tables will result from mapping the fowling ERD:



Select one:

- 1. Four Tables
- 2. One Tables
- 3. Three Tables
- 4. Two Tables

Qu5: When mapping the following ER-Diagram to into relational, HOW many overall Entities will result, and HOW many Attributes will be n the Organization Table:



Select one:

- 1. Overall THREE Entities, and FOUR Attributes in the Organization Entity
- 2. Overall FIVE Entities, and THREE Attributes in the Organization Entity
- 3. Overall FIVE Entities, and TWO Attributes in the Organization Entity
- 4. Overall FOUR Entities, and TWO Attributes in the Organization Entity
- 5. Overall FOUR Entities, and FOUR Attributes in the Organization Entity

Qu7:

All the following are TRUE about TYPES and DOMAINS n SQL, EXCEPT:

Select one:

- 1. Types can have 'check' constraint
- 2. Domains can have 'not null' constraint
- 3. Types can't have constraints
- 4. None of the given choices

Qu8:

Which of the following SQL structures are valid insert statements?

- insert into department('1','CS');
- II. inset values into department('1','CS');
- III. insert into department values('1','CS');
- IV. insert into department (name,id) values ('CS','1');

Select one:

- 1. I and IV
- 2. III and IV
- 3. I only
- 4. II only
- 5. II and III

Qu9:

Based on the following schema, which SQL statement that will find the total buildings are created for each project ID

Project(Pro ID, Proj_Name,Start_Date, End_Date)

Building(Build ID,Address,Proj_ID)

Select one:

- Select Proj_ID, sum(build_id)
 - From Buliding, Project
 - where Building.Proj_ID = Building.Proj_ID
 - Group by proj_ID
- 2. Select Proj_name, count(build_id)
 - From Buliding.Project
 - where Building.Proj_ID = Building.Proj_ID
 - Group by proj_name
- **3.** Select Proj_ID, sum(build_id)
 - From Buliding.Project
 - where Building.Proj_ID = Building.Proj_ID
 - Group by proj name
- 4. Select Proj name, sum(build id)
 - From Buliding.Project
 - Group by proj_ID

Qu10:

In a relational database management system, a rule that ansures that every record in a table is unique is called

Select one:

- 1. Referential integrity constraint
- 2. Partial key constraint
- 3. Participation constraint
- 4. Primary key constraint

Qu11:

In a set operation between two SQL statements, all the following are correct, ESCEPT:

Select one:

- 1. Order of attributes in the two statements should be the identical
- 2. Number of attributes n the two statements can be different
- 3. The data types of attributes n the two statement should be identical

4. The name of attributes n the two statement in the two statements can be dentical

Qu 11:

Which of the following for a relation:

Select one:

- 1. There can be a field with non-atomic value
- 2. The columns can be n any order
- 3. None of the given choices
- 4. Two rows may be identical

Qu 12:

DDL is provided for:

Select one:

- 1. None of the given choices
- 2. Addition of new structures in the BD system
- **3.** Description of logical structure of DB
- 4. Manipulation and processing of DB

Qu 13:

What is the result of transforming the following purchase order into 2nd NF:

Purchase Order

Order ID:1

Supplier ID:101

Supplier Name: Mark

Item Number	Name	Amount	Price	Total Price
1000	Keyboard	15	5\$	75\$
1001	Mouse	20	6\$	120\$
1005	Camera	7	20\$	140\$

Select one:

1. (Order Num, Order_Date)

(Item_Name)

(Order Num, Item Num, Amount, price, Supplier_ID, Supplier_Name)

- 2. (Order ID,Order_Date,Supplier_ID,Supplier_Name) (Item_Num,Item_Name) (Order Num,Item_Num,Amount,price)
- 3. (Order Num,Order_Date,Supplier_ID,Supplier_Name) (Item Num,Item_Name) (Order Num,Item Num,Amount,price)
- 4. (Order ID ,Supplier_ID,Supplier_Name) (Item Num,Item_Name) (Order Num,Item Num,Amount,price)

Qu14:

Compared to file system, all the following are potential advantages of using a database, EXCEPT:

Select one:

- 1. Better data consistency
- 2. Improved data ntegrity
- 3. Higher cost
- 4. Control of redundancy

Qu15:

Which of the following is allowed for a entity?

Select one:

- 1. The primary key should always be the first attribute
- 2. Two rows may be identical
- **3.** Fields can have any order
- 4. There can be a field with non-atomic value

Qu16:

The most fundamental concept o the ER modeling is:

Select one:

- 1. Type
- 2. Class
- 3. Entity
- 4. Domain

Qu17:

To express the fact that every entity in the entity set participates in at laest one relationship in the relationship set, we use:

Select one:

- 1. Overlapping Specialization
- 2. Total participation
- 3. Partial participation
- 4. Strong Entity Set

Qu18:

All the following are correct about roles n SQL, EXCEPT:

Select one

- 1. A single user can only have one role
- 2. There can be a chain of roles
- 3. A role can be granted to another role
- 4. A role can be granted to a group of users

Qu19:

Renaming in SQL s used to:

Select one:

- 1. Give tables permanent names
- 2. Give relationships permanent names
- 3. Give attributes temporary names
- 4. Give attributes permanent names

Qu20:

The usual way for relational database designers to enforce referential ntegrity by:

Select one:

- 1. Not null in the CREATE TABLE COMMAND
- 2. Foreign Key in the CREATE TABLE COMMAND
- 3. Check Integrity in the CREATE TABLE COMMAND
- 4. Primary Key in the CREATE TABLE COMMAND

Qu21:

A business rule which states that an employee may supervise several projects is an example of:

Select one:

- 1. Composite
- 2. Binary relationship
- 3. Incomplete
- 4. Unary relationship

Qu22:

Based on the following authorization commands (order from 1 to 14), which of the following privileges is true assuming that Ali is the owner of the database?

Order	Ву	Command
1	Ali	Grant Select on Employee to Omar with grant option;
2	Omar	Grant Select on Employee to Samer with grant option;
3	Ali	Grant Update on Employee to Omar with grant option;
4	Ali	Revoke Select on Employee From Omar Cascade;

Select one:

Ali has select privilege on employee
Ali and Omar have Update privilege on employee

- **2.** Ali and Omar have select privilege on employee Ali and Omar have Update privilege on employee
- **3.** Omar and Samer have select privilege on employee Ali and Omar have Update privilege on employee
- **4.** Ali, Omar and Samer have select privilege on employee Ali and Omar have Update privilege on employee

Qu23:

The most fundamental concepts of the ER modeling is:

- 1. Classes
- 2. Entities
- 3. Relationships and Entities
- 4. Relationship