

## QUESTION 1

5 points

Save Answer

Given the following database:

*branch* (*branch\_name*, *branch\_city*, *assets*, *phone*)  
*customer* (*customer\_ID*, *customer\_name*, *customer\_street*, *customer\_city*,  
*phone\_number*, *start\_date*)  
*loan* (*loan\_number*, *branch\_name*, *amount*, *interest*, *monthly\_fees*)  
*borrow* (*customer\_ID*, *loan\_number*, *date*)  
*account* (*account\_number*, *branch\_name*, *available\_balance*, *interest*,  
*monthly\_fees*, *account\_holder\_name*)  
*owns* (*customer\_ID*, *account\_number*, *date*)

Identify the primary and foreign keys of table *owns*.

- ☐ 1. *owns* (*customer\_ID* PK, *account\_number* PK FK, *date*)
- ☐ 2. All the other answers are incorrect.
- ☐ 3. *owns* (*customer\_ID* PK FK, *account\_number* PK FK, *date*)
- ☐ 4. *owns* (*customer\_ID* PK FK, *account\_number* PK, *date*)
- ☐ 5. *owns* (*customer\_ID* PK, *account\_number* FK, *date* FK)

## QUESTION 2

5 points

Save Answer

Given the following database:

*person* (*driver\_id*, *name*, *address*, *phone\_number*)  
*car* (*license*, *model*, *year*, *insurance*)  
*accident* (*report\_number*, *date*, *location*, *officer\_name*)  
*owns* (*driver\_id*, *license*, *date*, *payment*)  
*participated* (*driver\_id*, *license*, *report\_number*, *damage\_amount*)

Identify the primary and foreign keys of table *participated*.

- ☐ 1. All the other answers are incorrect.
- ☐ 2. *participated* (*driver\_id* PK FK, *license* PK FK, *report\_number* PK FK, *damage\_amount*)
- ☐ 3. *participated* (*driver\_id* PK, *license* PK FK, *report\_number* PK, *damage\_amount*)
- ☐ 4. *participated* (*driver\_id* PK, *license* PK FK, *report\_number* PK FK, *damage\_amount*)
- ☐ 5. *participated* (*driver\_id* PK FK, *license* PK, *report\_number* PK, *damage\_amount*)

## QUESTION 3

5 points

Save Answer

Given the following database:

*branch* (*branch\_name*, *branch\_city*, *branch\_address*, *phone*)  
*customer* (*customer\_ID*, *customer\_name*, *customer\_street*, *customer\_city*,  
*phone\_number*, *start\_date*)  
*loan* (*loan\_number*, *branch\_name*, *amount*, *interest*, *monthly\_fees*)  
*borrow* (*customer\_ID*, *loan\_number*, *date*)  
*account* (*account\_number*, *branch\_name*, *available\_balance*, *interest*,  
*monthly\_fees*, *account\_holders\_name*)  
*deposit* (*customer\_ID*, *account\_number*, *date*)

Identify the multi-valued attributes.

- ☐ 1. *phone\_number*
- ☐ 2. *account\_holders\_name*
- ☐ 3. *phone*
- ☐ 4. All the answers are correct.
- ☐ 5. *branch\_address*

## QUESTION 4

5 points

Save Answer

Given the following database:

*person* (*driver\_id*, *name*, *address*, *phone\_number*)  
*car* (*license*, *model*, *year*, *insurance*)  
*accident* (*report\_number*, *date*, *location*, *officer\_name*)  
*owns* (*driver\_id*, *license*, *date*, *payment*)  
*participated* (*driver\_id*, *license*, *report\_number*, *damage\_amount*)

Identify the multi-valued attributes.

- ☐ 1. All the other answers are incorrect.
- ☐ 2. *report\_number*, *driver\_id*
- ☐ 3. *address*, *report\_number*
- ☐ 4. *phone\_number*, *report\_number*
- ☐ 5. *phone\_number*, *address*

## QUESTION 5

5 points

Save Answer

Given the following database:

*branch* (*branch\_name* PK, *branch\_city*, *assets*, *phone*)  
*customer* (*customer\_ID* PK, *customer\_name*, *customer\_street*, *customer\_city*,  
*phone\_number*, *start\_date*)  
*loan* (*loan\_number* PK, *branch\_name* FK, *customer\_ID* FK, *amount*, *interest*,  
*monthly\_fees*)  
*account* (*account\_number* PK, *branch\_name* FK, *customer\_ID* FK,  
*available\_balance*, *interest*, *monthly\_fees*, *account\_holder\_name*)

Identify the cardinality of the relationship between *customer* and *loan*.

- ☐ 1. *M:1*.
- ☐ 2. *1:M*.
- ☐ 3. *1:1*.
- ☐ 4. All the other answers are incorrect.
- ☐ 5. *M:N*.

## QUESTION 6

5 points

Save Answer

Given the following database:

*person* (*driver\_id* PK, *name*, *address*, *phone\_number*)  
*car* (*license* PK, *driver\_id* FK, *model*, *year*, *insurance*, *date*, *payment*)  
*accident* (*report\_number* PK, *license* FK, *date*, *location*, *officer\_name*,  
*damage\_amount*)

Identify the cardinality of the relationship between *person* and *car*, including obligation.

- ☐ 1. *1:M*, dashed line towards *car* only.
- ☐ 2. *1:M*, dashed line towards *person* only.
- ☐ 3. *1:M*, solid line towards both ends.
- ☐ 4. All the other answers are incorrect.
- ☐ 5. *1:M*, dashed line on both ends.

## QUESTION 7

5 points

Save Answer

Given the following database:

*person* (*driver\_id* PK, *name*, *address*, *phone\_number*)

*car* (*license* PK, *driver\_id* FK, *model*, *year*, *insurance*, *date*, *payment*)

*accident* (*report\_number* PK, *license* FK, *date*, *location*, *officer\_name*, *damage\_amount*)

Identify the cardinality of the relationship between *car* and *accident*, including obligation.

- ☐ 1. *M:N, dashed line towards car only.*
- ☐ 2. *M:N, solid line towards both ends.*
- ☐ 3. *All the other answers are incorrect.*
- ☐ 4. *M:1, dashed line towards accident only.*
- ☐ 5. *1:M, dashed line towards car only.*

## QUESTION 8

5 points

Save Answer

Consider a Many-to-Many relationship between the following entities: Student and Module. Obligation between the two entities is represented with dashed lines on both ends. Which of the following statements is correct?

- ☐ 1. *Each student has at least 1 module. Each module may have 1 or many students.*
- ☐ 2. *Each student may be enrolled in 1 or many modules. Each module may have 1 or many students.*
- ☐ 3. *Each student has at least 1 module. Each module has at least 1 student.*
- ☐ 4. *Each student may be enrolled in 1 or many modules. Each module has at least 1 student.*
- ☒ 5. *All the other answers are incorrect.*

## QUESTION 9

5 points

Save Answer

Which of the following statements about SQL tables is correct?

- ☐ 1. *All tables must have a unique name (within a given schema).*
- ☐ 2. *Columns have names. Each name must be unique within a table.*
- ☐ 3. *In every row, there is a maximum of one value for each column.*
- ☐ 4. *A row does not need to have a value for every attribute. An attribute with no value has the value NULL, when permitted.*
- ☐ 5. *All the answers are correct.*

## QUESTION 10

5 points

Save Answer

Select True/False for the statement: *Primary Key must be unique and must not allow the NULL.*

- ☐ True
- ☐ False