**Question 01**

What are the usages of using SQL constraints?

Constrains using for specifying rules for the data in the table. Such as **Primary Key, Foreign Key, Unique, Not Null, Default**

**Question 02**

What is the primary purpose of a primary key in a database table?

The primary purpose of a primary key in a table is to uniquely identify each record or row in that table.

**Question 03**

Can a primary key consist of multiple columns? If yes, what is it called?

Yes, a primary key can consist of multiple columns, and when it does, it is called a "composite primary key" or "compound primary key."

**Question 04**

How does a primary key differ from a unique key constraint?

A primary key uniquely identifies each record in a table and cannot contain NULL values, while a unique key only prevents duplicate values in a column and can contain NULL values.

**Question 05**

Is it possible for a primary key column to have NULL values? Why or why not?

No, a primary key column cannot have NULL values. This is because a primary key must uniquely identify each record in a table.

Allowing NULL values in a primary key would violate this uniqueness constraint.

**Question 06**

What is a foreign key, and how does it relate to another table? And can a foreign

key reference multiple tables?

A foreign key is a column or set of columns in one table that references the primary key of another table. It establishes a relationship between the two tables.

**Question 07**

How does a unique constraint differ from a primary key constraint?

Same Answer for Question 04

**Question 08**

Is it possible to have multiple unique constraints on a single table? If yes, explain

with an example.

yes, you can have multiple unique constraints on a single table. These constraints ensure that no two rows have the same value for a specified column or set of columns. For example, in a students table, you could have unique constraints on email, student\_id\_number, phone\_number.

**Question 09**

What is the purpose of a default constraint in SQL?

A default constraint in SQL is used to automatically assign a default value to a column if no value is provided when inserting a new record. This helps prevents NULL values from entering the table.

**Question 10**

Can a column have both a default constraint and a NOT NULL constraint at the

same time?

Yes, a column can have both a default constraint and a NOT NULL constraint at the same time. The default constraint ensures that a value is always assigned to the column, while the NOT NULL constraint prevents NULL values from being inserted.

**Question 11**

How do default constraints affect existing data when added to a table?

Adding a default constraint to a table only affects new rows. Existing rows retain their values.

**Question 12**

What is the function of a check constraint in a table?

After creating the table, we can check all the constraints from DESC *“table name”*.

**Question 13**

Imagine you're creating a database for a bookstore. The database should include

tables for books, authors, and categories.

Establish relationships between these tables using appropriate foreign key

constraints. Write the complete SQL codes for the given task.