# **RGPV 2019**

# Q. Explain the concepts of Primary key, Foreign key and Integrity constraints?

#### Ans.

If there is relation between table than it must have a primary key.

In table Student RollNo is primary key.

| S | tu | de | nt |
|---|----|----|----|
|   |    |    |    |

| RollNo | Name       | Department |
|--------|------------|------------|
| 010    | Sanjay     | CSE        |
| 012    | Ram Prasad | ME         |
| 021    | Natwarlal  | CSE        |

In table Account RollNo is primary key for it but also a Foreign key for table Student.

# Account(Student)

| <u>RollNo</u> | A/C No.   |
|---------------|-----------|
| 010           | 0074100   |
| 031           | 005452010 |
| 040           | 14540000  |

Primary keys cant contain duplicate value but, foreign keys can contain duplicate values.

Also, Primary key cant contain NULL values, Foreign keys can contain NULL values.

Primary key vs Foreign key:

| Primary Key                 | Foreign Key               |
|-----------------------------|---------------------------|
| No duplicate value.         | Duplicate values allowed. |
| Null values not allowed.    | Null values allowed.      |
| Uniquely identified.        | May be uniquely           |
| It's indexed automatically. | No automatic index.       |

A foreign key is a set of one or more columns in a table that refers to the "primary key in another table". So foreign key Can't contain a value which does not refer to the primary key, I am not agree that PhoneNumberTypeID is a foreign key.

# **Integrity Constraints:**

Some integrity constraints are:

- 1. Primary key constraints
- 2. Foreign key constraints
- 3. Unique key constraints

## 3. Unique key contraints:

A unique column constraint in a table is similar to a primary key in that the value in that column for every row of data in the table must have a unique value. Although a primary key constraint is placed on one column, you can place a unique constraint on another column even though it is not actually for use as the primary key.

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