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CIS 310-01

A4

9/18/2017

Part 1:

1.

|  |  |  |
| --- | --- | --- |
| **TABLE** | **PRIMARY KEY** | **FOREIGN KEY(S)** |
| Employee | EMP\_CODE | STORE\_CODE |
| Store | STORE\_CODE | REGION\_CODE & EMP\_CODE |
| Region | REGION\_CODE | NONE |

2.

|  |  |  |
| --- | --- | --- |
| **TABLE** | **ENTITY INTEGRITY** | **EXPLANATION** |
| Employee | YES | Each entity in the Employee table has a unique value and there are no null values. |
| Store | YES | Each entity in the Store table has a unique value and there are no null values. |
| Region | YES | Each entity in the Region table has a unique value and there are no null values. |

3.

|  |  |  |
| --- | --- | --- |
| **TABLE** | **REFERENTIAL INTEGRITY** | **EXPLANATION** |
| Employee | YES | Each foreign key in the Employee table has a matching entry in the related table. |
| Store | YES | Each foreign key in the Store table has a matching entry in the related table(s). |
| Region | N/A | N/A |

Part 2:

The natural join between the STUDENT table and the PROFESSOR table would be the PROF\_CODE. The PROF\_CODE is the primary key in the PROFESSOR table and serves as the foreign key in the STUDENT table. Each foreign key in the STUDENT table has a matching entry in the PROFESSOR table or the value is NULL, which fulfills the rules of referential integrity. Entity integrity is also fulfilled in both tables because the primary keys are unique identifiers and there are no NULL values.