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CIS 310-01

A4

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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.