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A university DB contains information about professors (identified by SIN) and courses (identified by course ID). Professors teach courses; each of the following situations concerns the Teaches relationship set.List all candidate keys of the Teaches relationship set.

a. Professors can teach the same course in several semesters, and each offering must be recorded.

   For professor SIN is primary key.
   For Course CID is primary key.
   For semester SID is primary key.
   So candidate key is {SIN, CID, SID}.

b. Professors can teach the same course in several semesters, but only the most recent such offering needs to be records.

   Candidate key is {SIN, CID}.

Assume the above Situation (b) applies in all subsequent situations. List all the keys possible in each of the following situations.

a. Every professor teaches a course, and every course is taught by some professor.

   For professor SIN is primary key.
   For Course CID is primary key.
   So candidate key is {SIN, CID, SID}.

b. Every professor teaches exactly one course, and every course is taught by exactly one professor.

   For professor SIN is primary key.
   For Course CID is primary key.
   So candidate key is {SIN} or {CID}.