

ASSIGNMENT 1

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.

Ans . In Professor table - SIN is the primary key

Course table - CourseID is primary key

Semester table – SemID is primary key

b. Professors can teach the same course in several semesters, but only the most recent such offering needs to be records. Assume the above Situation (b) applies in all subsequent situations.

Ans. Semester is attribute . The keys of teaches is SIN, CourseID.

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.

Ans. SIN , CourseID are candidate keys .

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

Ans . SIN or CourseID are the candidate keys .