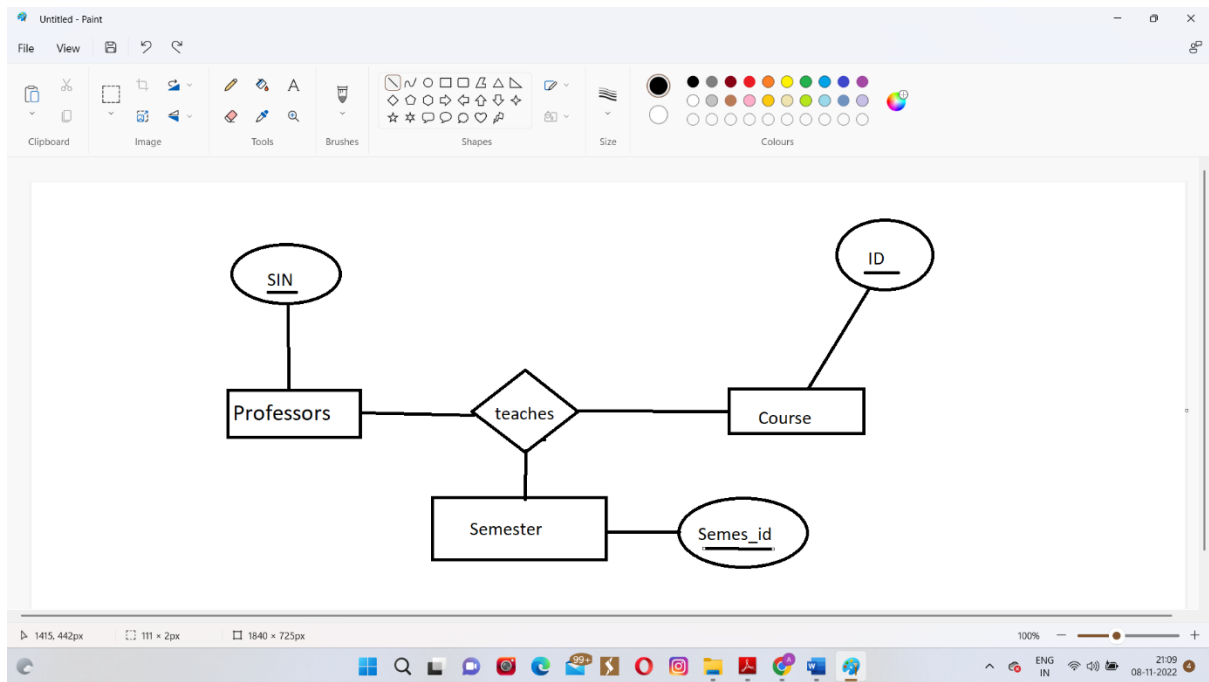NAME-AASHISH RAWAT
ROLL NO-220950320001

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. 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.

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

A): Professors can teach the same course in several semesters, and each offering must be recorded
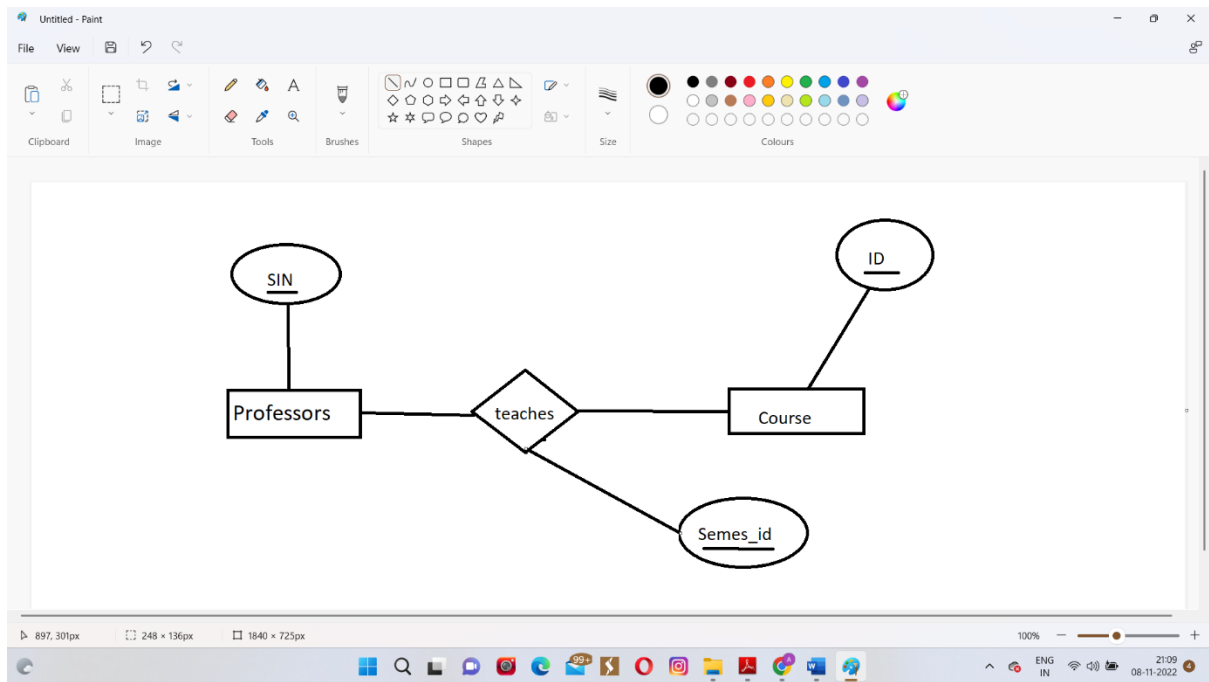
All key:

1-professors sin is a primary key

2-semester_id is primary key

3-Course_id is primary key

Constraint-many to many that professors can teach many courses

4-candidate key-{sin,semester_id,course_id}

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

1-professors sin is a primary key

2-semester_id is primary key

4-candidate key-{sin,course_id}