

Database Systems

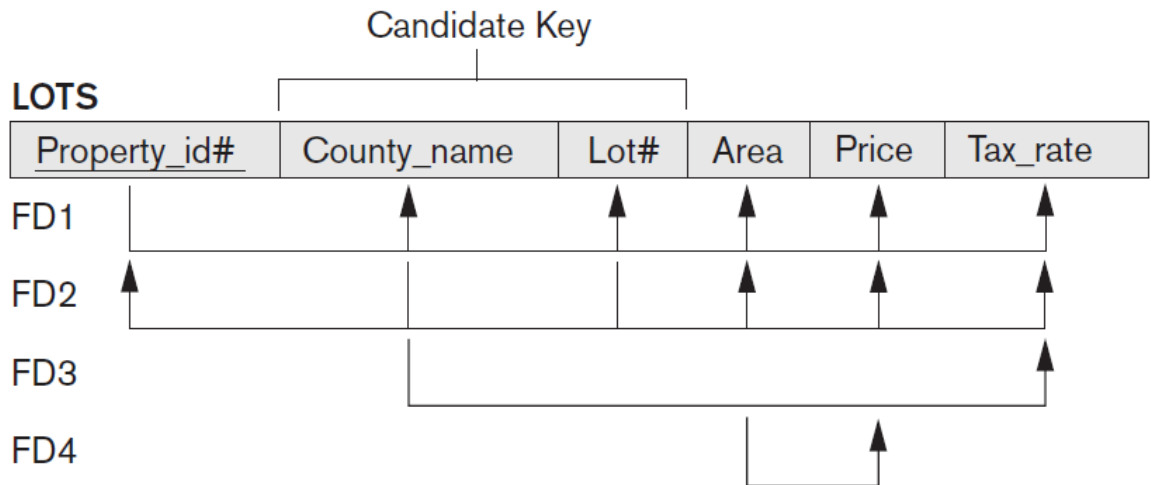
Date: 09/05/2024

QUIZ 7

NAME: _____ ROLL NO _____

SECTION: _____ POINTS: /10

QUESTION : Consider the relation below with the functional dependencies. Answer the following questions.



- a. Is the relation in 2NF? Provide the reason if it is not in 2NF [2points]

No as partial dependencies exists.

Property_id#, County_name → Tax_rate is FD but County_name → Tax_rate is also FD

- b. Is the relation in 3NF? Provide the reason if it is not in 3NF [2points]

No, as transitive dependencies exists.

Property_id# → Area, Area → Price, Property_id# → Price

- c. Convert the relation in 2NF if it is not in 2NF. If it is, state it is in 2NF [3 points]

LOTS1

<u>Property_id#</u>	County_name	Lot#	Area	Price
---------------------	-------------	------	------	-------

LOTS2

<u>County_name</u>	Tax_rate
--------------------	----------

- d. Convert the relation in 3NF if it is not in 3NF. If it is, state it is in 3NF [3 points]

LOTS1A

<u>Property_id#</u>	County_name	Lot#	Area
---------------------	-------------	------	------

LOTS1B

<u>Area</u>	Price
-------------	-------