

Name: _____

QUIZ 6 - ICS 321 Fall 2017

Today we finished covering the second part of Chapter 4 on Relational Operators. Considering the following values for S, SP and P, answer the questions that follow.

1. $(S \{ SNAME \} \text{ MINUS } (S \text{ JOIN } SP) \{ SNAME \})$ are the names of shippers that _____?

S

SNO	SNAME	STATUS	CITY
S1	Smith	20	London
S2	Jones	10	Paris
S3	Blake	30	Paris
S4	Clark	20	London
S5	Adams	30	Athens

2. $S \{ SNAME \} \text{ MINUS } (S \text{ JOIN } P) \{ SNAME \}$ are the names of shippers that _____?
3. Does $S \{ SNAME \} \text{ MINUS } (S \text{ JOIN } SP) \{ SNAME \} = S \{ SNAME \} \text{ MINUS } (S \text{ JOIN } P) \{ SNAME \}$? Show your calculations.

4. $P \{ PNAME \} \text{ MINUS } (P \text{ JOIN } SP) \{ PNAME \}$ are the names of parts that _____?

SP

SNO	PNO	QTY
S1	P1	300
S1	P2	200
S1	P3	400
S1	P4	200
S1	P5	100
S1	P6	100
S2	P1	300
S2	P2	400
S3	P2	200
S4	P2	200
S4	P4	300
S4	P5	400

5. $P \{ PNAME \} \text{ MINUS } (P \text{ JOIN } S) \{ PNAME \}$ are the names of parts that _____?

P

PNO	PNAME	COLOR	WEIGHT	CITY
P1	Nut	Red	12.0	London
P2	Bolt	Green	17.0	Paris
P3	Screw	Blue	17.0	Oslo
P4	Screw	Red	14.0	London
P5	Cam	Blue	12.0	Paris
P6	Cog	Red	19.0	London

6. Does $P \{ PNAME \} \text{ MINUS } (P \text{ JOIN } SP) \{ PNAME \} = P \{ PNAME \} \text{ MINUS } (P \text{ JOIN } S) \{ PNAME \}$?
7. Write a Tutorial D expression listing the part names of the parts being shipped not counting shipments from S1. (*Hint: Determine set of PNO numbers being shipped not by S1 and join that with P, and project PNAME.*)