

## QUIZ 8 – ICS 321 Fall 2017

Chapter 5 – Relational Operators. MATCHING, EXTEND, IMAGE RELATIONS and AGGREGATION. Consider the following relvars.

E

<u>ENUM</u>	FNAME	LNAME	DEPT
1	Mary	Morikawa	Administration
2	Kelly	Kobayashi	Administration
4	Tom	Takumi	Accounting
6	Gwen	Galuteria	Finance
10	Nancy	Numoto	Marketing

EP

<u>PID</u>	<u>ENUM</u>	HRS
1000	1	30
1000	4	25
1000	10	55
1100	1	25
1100	4	40
1100	6	45
1200	1	25
1200	2	20
1200	4	45

P

<u>PID</u>	PNAME	DEPT	MAXHRS
1000	2018 Q3 Product Plan	Marketing	135
1100	2018 Q3 Portfolio Analysis	Finance	120
1200	2018 Q3 Tax Preparation	Accounting	145
1300	2018 Q4 Product Plan	Marketing	150

1. What does the relation **E MATCHING EP** represent and who are they?
2. What does the relation **P NOT MATCHING EP** represent and which ones are they?
3. What does the relation **E WHERE ( !EP ) { PID } = P { PID }** represent and who are they?
4. **EXTEND P { PID } : { TOTHR := SUM ( !EP , HRS ) }** produces the following relation. Fill in the blank attributes.

<u>PID</u>	TOTHR
1000	
1100	
1200	
1300	