CS 351 DATA ORGANIZATION & MANAGEMENT

FALL 2010

QUIZ 6/ SECTION-1 (*Date given: December 27, 2010*)

> Supplier (<u>sid</u>, sname, scity)
>
> Part (<u>pid</u>, pname)
>
> SP (<u>sid</u>, <u>pid</u>, count)

1- Find the names of suppliers who supply project with pid = p1.

$R1 = \prod_{sid}(\sigma_{pid\,=\,p1}\,SP)$

$R2 = \prod_{sname}(R1 \bowtie Supplier)$

2- Find the ids of suppliers who supply all parts.

$R1 = \prod_{pid}(Part)$

$R2 = \prod_{sid,pid}(SP)$

$R3 = R2 \div R1$

QUIZ 6/ SECTION-2 (*Date given: December 27, 2010*)

> Supplier (<u>sid</u>, sname, scity)
>
> Part (<u>pid</u>, pname)
>
> SP (<u>sid</u>, <u>pid</u>, count)

1- Find the names of suppliers who supply part with pid = p1.

$R1 = \prod_{sid}(\sigma_{pid\,=\,p1}\,SP)$

$R2 = \prod_{sname}(R1 \bowtie Supplier)$

2- Find the names of suppliers who supply all parts.

$R1 = \prod_{pid}(Part)$ $\qquad R4 = \prod_{sname}(R3 \bowtie Supplier)$

$R2 = \prod_{sid,pid}(SP)$

$R3 = R2 \div R1$

> Employee (<u>eid</u>, ename)
>
> Project (<u>pid</u>, pname, budget)
>
> AssignedTo (<u>eid</u>, <u>pid</u>, hours)

1- Find the ids of employees who work for the project with pid = p1.

$R = \prod_{eid} (\sigma_{pid = p1} \text{ AssignedTo})$

2- Find the ids of employees who work for both project p1 and p2.

$R1 = \prod_{eid} (\sigma_{pid = p1} \text{ AssignedTo})$

$R2 = \prod_{eid} (\sigma_{pid = p2} \text{ AssignedTo})$

$R3 = R1 \cap R2$

Another solution

$R1 = \prod_{pid} (\sigma_{pid = p1 \text{ or } pid = p2} \text{ Project})$

$R2 = \prod_{eid, pid} (\text{AssignedTo})$

$R3 = R2 \div R1$