

Assignment : IDS

Trek (  $tId$ ,  $tOut$ ,  $tDate$  )

Student (  $sId$ , sname, sbranch )

Faculty (  $fId$ , fname, fschool )

Trek-Student (  $sId$ ,  $tId$  )

Trek-faculty (  $fId$ ,  $tId$  ).

$\Theta S \neq T$  ( Student ) -  $\Pi_{sId}$  ( Trek-Student )

$\equiv sId$

$F \neq T$  ( Faculty ) -  $\Pi_{fId}$  ( Trek-Faculty )

$fId$

$fId$

$\Delta \rightarrow$  Natural join

$sName \leftarrow JI_{sName, "Student"} ( S \Delta Student )$

$fName \leftarrow \Pi_{fName, "Faculty"} ( F \Delta Faculty )$

~~All se P  
PName, Type~~ 6 ( SName & PName, Type )

$SN \leftarrow P_{Name, Type} ( SName )$

$PN \leftarrow S_{Name, Type} ( fName )$

$Ans \leftarrow P_{Name, Type} ( SN \cup PN )$ .

Q2

$\text{TAG ID} \leftarrow \Pi_{\text{fId}} (\sigma_{\text{finance}} = "TAG")$  (Faculty)

$\text{TAG TREK} \leftarrow \Pi_{\text{tId}} (\sigma_{\text{fId}} = \text{TAG ID} \cdot \text{fId})$  (Trek-faculty)

$\text{STREK} \leftarrow \Pi_{\text{sId}} (\sigma_{\text{tId}} = \text{TAG TREK} \cdot \text{tId})$  (Student Trek)

$\text{STUDENTS} \leftarrow \sigma_{\text{SID}} = \text{STREK} \cdot \text{sId}$  (Student)

Q3  
 $A \leftarrow \Pi_{\text{sId}, \text{treklist}, \text{Sname}}$  (trek@student As trek of student)

diff treks

$\text{Avg} \leftarrow \text{sid, name} \text{f count}(\text{sid} \times 2)$  (A)

Q4

$A \leftarrow \emptyset$  ( Trek )  
 $tDest^m = Rayagdi \cup Mondi$

$B \leftarrow \Pi$  (  $\sigma$  )  
 $SId$  ( Trek-student )  
 $tId = A \cdot SId$

$C \leftarrow$  (  $\sigma$  ) ( student )  
 $SId = B \cdot SId$ .

$C \leftarrow \text{Ans}$ .

Q5

$G$  ( ( Trek  $\bowtie$  talkStudent )  
talk-faculty )

$tId, tDest^m, tdate, COUNT( tId + 15 )$

Q6

$A \leftarrow \Pi$  (  $\sigma$  ) ( Faculty )  
 $fId, fName$  ( School = "SCEE" )

$B \leftarrow ( A \bowtie )$  ( talk-faculty )

$C \leftarrow G ( B )$

$fId | COUNT( tId )$   
 $fName$

Q1  $X \leftarrow \text{Faculty} \rightarrow \text{Teach Faculty}$   
 $A \leftarrow \exists / FID F (X)$   
FID, COUNT(FID)  
+ Name of school

$S_1 \leftarrow \exists \sigma$  COUNT(TID) > 10 (A)

$S_2 \leftarrow \sigma \text{ COUNT}(TID) \leq 10 \quad (A)$   
^  
COUNT(TID) > 5

$S_3 \leftarrow \sigma \text{ COUNT}(TID) < 5 \quad (A)$

$\circledast A_1 \leftarrow T$  (S<sub>1</sub>)  
FID, FNAME, FSCHOOL, '1'

$A_2 \leftarrow T$  (S<sub>2</sub>)  
FID, FNAME, FSCHOOL, '2'

$A_3 \leftarrow T$  (S<sub>3</sub>)  
FID, FNAME, FSCHOOL, '3'

Any  $\leftarrow \exists / FID, FNAME, FSCHOOL, rating$  (A<sub>1</sub> ∪ A<sub>2</sub> ∪ A<sub>3</sub>)