```
Answer 1:
SELECT H. Owner Id, A. Agent Name FROM House H, Agent A, Amenity Y
WHERE H. Address = Y. Address AND A. Id = H. Agent Id
 Y. Feature = "5BR" AND H. Agent Id = "007";
   JL H. Owner Id, A. Agent Name ( H-Address = Y. Address A A. Id = H. Agent Id A
                                 Y. Feature = 5BR' N H. Agent Id = "007"
                            (House H × Agent A × Amenity Y))
   Step 1
                       JL H. Owner Id, A. Agent Name
          H. Address = Y. Address A A. Id = 11. Agent Id A Y. Feature = 'SBR' A H. Agent Id = '007'
                                    I FI think H - In I A)
            House H
                     Agent A Amenity Y
  Step 2: Moving Select operation down, and reasonge leaf
                          A. Id = H. Agent Id
              Agent A
                            M. Address = Y. Address
                  Y. Feathore = 5BR H. AgentId = '007'
                                   House H
                  Amenity Y
```

Step 3 : Combine Carteslan Product and select into Join IT H. Owner Id, A. Agent Name MA. Id = H. AgentId Agent A Y. Feature= SBR' H. Agent Id = '007' House H Amenity 4 Moving Projection Down IL H. Owner Id, A. Agent Name A. Id = H. Agent Id Agent A JI H. Agent Id, H. Dwnes Id M. Address = Y. Address from the conflict between was Y. Feature = 5BR' H. Agent Id = '007' Amenity y Final Expression - [ of pd) [9] as reseated tollings with JI H. Owner Id, A. Agent Name (Agent A X) (( o Y. Feature = '5BR' (Amenity Y)) M. Address ( H. Agent Id = '007', (House H))))

Answer 2: Name = 'John Doe' AND 2006 | 05/19 < Boood Date < 2006 | 05/25 AND Author = 'Joe Phic' (Customer XI Bossowings X Item)) Step 1: Jt Cust Id (A) . . . 1 ~ 1 Name = 'John Doe' 1 2006/05/19 < Bossas Date < 2006/05/25 C. CustId = B. Cust Id Customer C M I. Flem Id = B. Item Id Boosowing B Item I Step 2: Move Select down C. Cust Id = B. Cust Id 2006/05/25 Item Indiagel Bossowing B the leve A insular wait and is a classe described took touchte to regarded their install looks but the in the total action all suffers and proceed , event

More Projection down show silipage is the The total and had a proof in a promptus court for the court to # B. Cust Id at show and muss pour (2000 - 10) servis ged etravellares sprang H. Name = John Doe I. Item Id = B. Item Id I was a seller age of the Customer C 2006/05/19 ( Author = "Joe Polic"

2006/05/25 | Date Company of Joseph Street Stre Etem I botes Agg promonder on Ephonologies Bossowing B The CustId (( The CoustId ( Nome = John Doe' ( Customer ())) Mc. CustId = B. Cust Id (TB. Cust Id ( 2006/05/19 < Bosson Date < 2006/05/25 (Bosson B)) M I. Hem Id = B. Hem Id transland (Tauthor = Joe Pblic' (Item I)))))) Isale > Habe Soil recions with growillo me SELECT C. Cust Id FROM ( (SELECT C. Cust Id FROM Customer C WHERE C. Name = John Doe') SETOIN WH to still at esvirits whenit your will MUSISELECT BECUSTED & SUMMER MUNICIPAL LIT CON BONT From (was all pricello upit salto (SELECT \* FROM Bossowing B WHERE BOSSOW Date > "2006/05/19" AND BOSSOW Date ( 2006 | 05 ) 25 ) JOIN (SELECT \* FROM Item I WHERE Author = 'Joe Pblic') ON I. Item Id = B. Item Id ) ON C. Cust Id = B. Cust Id));

## Answer 3:

The main query selects the unique little with a specific code cocode.

many water and

This code is determined by the result of inner subquery

Three subquery ->

It groups enrollments by course (CL. code.) and counts

how many students are registered in each course,

regardless of department.

It seturns code of courses maximum member of "cross-department" enrollments as determined by nested subquery.

Nested Subquery ->

It calculates the maximum count of cross-department enrollments for any course, means that the course being taken by students of different department than the one offering the course (c2-dept <> 52:dept)

RELECT C. Court II FROM CONDOWN C LITTLE DANGE DOWN TO LITTLE I DANGE DOWN

The query finally setsieves the little of the course that has the maximum number of students from departments other than offering the course.

( 12 (en (3 tot) > still cose of and

(SELECT & FROM THAN I WIETE AND WAS A THE PERRY)

ON I Iron Id E. Iten Id

((1260.3 = ktho.) 40(

Answer 400 almost told has tentaring

Given two transactions & schedules as:-

To	T,
8.[A]	the surprise of the
W. [A]	
	MICH MINING A DOSEA
25.2	8, [B]
&[B]	1900 - F. palente dil mounty or
w.[B]	1 19 Agrangement
	Proceeding & House of

Identifying Conflict:

# Conflict between Wo[A] and 8, [A]

w.[A] (write by To on A) and or, [A] (read by T, on A) conflicts because they operates on same data item Al one is write & another one is read.

i. we have a conflict between To and T, on A.

# Conflict between wo [B] and or [B]

w. [B] (write by To on B) and r, [B] (read by T, on B) conflict because they operate on same data Hem B and one is a write and the other is read.
... we have a conflict between To & T, on B.

Now, based on the conflict identified:

- 1) from the conflict between wo [A] (by To) and or, [A] (by T, ): To must come before Ti, so we add a directed edge from To -> Ti in the precedence graph
- (i) from the conflict between wo[B] (by To) and or [B] (by T.): To must come before Ti, so we add another directed edge from To TI. Therefore the precedence graph will look as:-((((A sense))) ( ( ( (A sense H))))

Now, Since precedence graph does not contains any Cycles, so the given schedule is conflict sevializable.

Answer 5: Fine Auto " Lie Pills ( City towns of Miles and Transaction Ti: lock - S(A) read (A) - (lock - 5 (B)) - 4 > FI/ES/ , NOS A DOMANTO - MINTE read (B) upgrade to lock = X(B) if A=0 then worter (B) a - Minister I whock (B) I METE Spilason unlock (A) 318: Mary Solvet down Transaction T2: lock - S(B) read (B) lock - S(A) Introduct = ATTENTION read (A) if B=0 then by matt. I want = wan upgrade to lock - x (A) A: A+1. wate (A) unlock (A) unlock (B) Deadlock Possibility :- Deadlock will occur if -Ti locks A and waits for lock B, while Tz locks B and waits to lock A. This is called circular wait and is a classic deadlock condition. If both transaction acquire their initial locks but then wait on each other's locked resources, neither can proceed, resulting in a deadlock.