Paper: Answering queries using views: A survey

Question 8  
Consider relations

students (id, name, major)  
courses (cno, title, credits)  
registration (id, cno, semester, year)

Write the query “list titles and course numbers of all courses John Henry has taken” in DATALOG.

Question 9  
Give a brief and informal description of the “bucket algorithm” in your own words.

Question 10  
Give definitions for equivalent and contained rewritings.  
Give an intuitive (informal) definition of maximally-contained rewriting.

Paper: Relational Databases for Querying XML Documents: Limitations and Opportunities

Question 11  
Consider an XML document with the following simplified DTD

<!ELEMENT bib (book* )>  
<!ELEMENT book (title, author+, publisher, year, price )>  
<!ELEMENT author (last, first )>

All undefined elements are #PCDATA.

How would this data be stored in the “basic inlining” technique? Assume the document has only one root, the bib element. Write down the schemas.

How is the query “list titles of books authored by Hank Korth” expressed (in SQL) using your schema for the basic inlining technique?