

Solution notes

Comparative Programming Languages 2005 (MR) Paper 3 Question 4, Paper 10 Question 5

The course now has four extra lectures to cover Prolog. This is insufficient to expect students to be competent, so this question just tests for competence in understanding a Prolog program.

- a) `H=a T=[b,c];`
 `H=b T=[a,c];`
 `H=c T=[a,b];`
 No
 s successively instantiates H to and element of its second argument, and T to the remaining elements.
- b) `Q=[a];`
 No
- c) `Q=[a,b];`
 `Q=[b,a];`
 No
- d) `Q=[a,b,c];`
 `Q=[a,c,b];`
 `Q=[b,a,c];`
 `Q=[b,c,a];`
 `Q=[c,a,b];`
 `Q=[c,b,a];`
 No
- e) `p(X,Y)` is satisfied if list X is a permutation of list Y.