1997 Paper 7 Question 13

Natural Language Processing

The following dialogue between a hypothetical User, U, and a database access system, S, illustrates some of the problems inherent in natural language processing by machine.

> U: Is every type of shock absorber stocked in one warehouse in any city?
> S: Yes, in the South Coventry warehouse.
> U: Which types are held in Birmingham?
> S: sa55 and sa65 shock absorbers for Metros and Montegos.

(*a*) Describe the problems illustrated by this extract. [6 marks]

(*b*) Give a sketch of an architecture of a natural language interface to a database which could support such exchanges. [6 marks]

(*c*) Say how, and to what extent, the problems described could be solved within such an architecture. [8 marks]