

1997 Paper 11 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]