Natural Language Processing

Write on four of the following topics, describing the problems they raise and their significance for natural language processing. [5 marks each]

(a) Worst-case (exponential) syntactic ambiguity

(b) Semantic interpretation of *embedded* propositions (such as *John thinks the prime minister is a grey man*)

(c) Focus and anaphoric reference

(d) Unification as a technique for expressing syntactic rules

(e) Defeasible reasoning for interpreting utterances

(f) Natural prosody for speech synthesis from text