Solution Notes – NLP 99 Exam Question 2

Decomposition into subtasks and brief description of techniques: morphology, lexicon, syntactic parsing, semantic translation, discourse anaphora / ellipsis, deduction / theorem proving, lexical / domain knowledge, answering (8mks)

Syntactic parsing – ambiguity PP attachment; non-constituent coordination; apposition; passive (3mks)

Discourse factors – resolving anaphora (others) ellipses (others, four) (3mks)

Lexical / domain knowledge – e.g. frigates isa ship; in Atlantic/Pacific entails at sea; with... escorts = escorted by etc (3mks)

Translation / theorem proving – representation of assertions in form that query cld be answered and problems of translation (eg. frigate(ulysses), frigate(skolem1)); translation of 'how many' (3mks)