

UG Exam Performance Feedback

Second Year

2018/2019 Semester 2

COMP24412 Symbolic AI

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Comments Part A

For this online part the average score was 9.12 out of 15. Two of the questions were answered completely correctly by almost everybody and the rest were answered mostly correctly by the majority.

Part B

The modelling question was generally answered well with the majority of students choosing Prolog. The question was harder to answer with first-order logic but those who chose this generally did well.

The reasoning question was more challenging. Most students managed the translation to clausal form. Those attempting the reasoning part either struggled to apply a single reasoning step properly, understood how to construct a proof but without reference to the given clause algorithm, or there were a small number of complete solutions. It was clear that most students were not comfortable with superposition but this was not overly problematic as resolution applied to equality literals was allowed here.

Parts C and D

Question on Knowledge Representation (RDF-NL): Most students classified the main rhetorical relations present in the sentence as well as the predicate-argument structures. Most of the difficulty was in replicating the essence of the RDF-NL notation (i.e. reified ids per triples).

Question on Natural Language Inference: Most students were able to exemplify 3 entailment relations. There was some confusion with regard to the cover and alternation relations.

Question on ILP: There was no particular difficulty or confusion observed.

Question on Neuro-Symbolic Approaches: This was the hardest question and there was some tolerance during correction. Many students were able to articulate (with eloquence) a full answer to the question. No particular patterns of errors were observed.

Question on Semantic Parsing: The correction was tolerant around minor mistakes in notation. There was some confusion on the application of the sequence of operations and on the modelling of the semantic features for the noun in the sentence (mountain) which should map to a unary predicate.

Question on End-to-End Neuro-Symbolic Systems: Most students were able to articulate the main components of the system. The most common mistake was missing or not detailed inputs/outputs for the components.
