Practice Exam

You have 120 minutes to do this exam. Please number every sheet of paper that you submit, and note the total number of sheets on the first page. You may not use any additional materials beyond those we distribute together with this exam. **Please do not use pencils!**

You can achieve a total of XXX points in this exam. The grade is determined based on a total number of 100 points, so there are XX bonus points. In order to pass, you must get at least 50 points.

We accept answers in English and German; feel free to use whichever langguage you feel more comfortable with.

Good luck!

Please note: it is possible that the final exam will contain one or two more questions.

1. Minor questions

(a) What are upward and downward monotonic quantifiers? Give examples.

(b) Natural language expressions come with (at least) two layers of meaning information, the assertion and the presupposition component. Summarize briefly the major difference between assertions and presuppositions.

(c) Which tests can be used to distinguish states from eventualities (activities and events), and activities from events (acomplishments)? Give two for each case!

(d) Consider sentences (1) and (2) below. How many distinct interpretations does each of the sentences have? Give adequate representations for the readings of sentence (2)

(1) *Bill and Mary watched a movie*

(2) *Bill and Mary made a movie*

(e) The DRS K = [| [x | x = Peter, walk(x)] => [y | y = x, talk(y)]] is not an appropriate representation for the sentence “If John walks, he talks” because K differs from this sentence ...

(a) in its truth-conditions

(b) in its anaphoric potential

Which of the two answers is correct? Explain and give an example.

2. Type theory

Consider sentence (1) and its syntactic structure (2):

(1) *An unknown person robbed a bank.*

(2) [$_{S}$ [$_{NP}$ [$_{DET}$ An] [$_{N'}$ [$_{ADJ}$ unknown] [$_{N}$ person]]]
[$_{VP}$ [$_{V}$ robbed] [$_{NP}$ [$_{DET}$ a] [$_{N}$ bank]]]]

(a) Give appropriate type-theoretic translations for the five words occuring in this sentence, and specifiy the type of each expression. The translation of “unknown” should use the constant know* of type ⟨e, ⟨e, t⟩⟩.

(b) Derive the semantic representation for the sentence, using basic composition rules and beta reduction. If you are not able to find a reasonable lambda term for “unknown,” you may use unknown’ as translation for this part of the problem.

3. Cooper storage

Consider the following sentence and its (slightly simplified) syntactic structure.

(3) Every student believes that a professor works.

(4) [$_S$ [$_{NP}$ Every student] [$_{VP}$ [$_V$ believes-that [$_S$ [$_{NP}$ a professor] [$_{VP}$ works]]]]

The sentence is scopally ambiguous: In total, it has three readings.

(a) Compute one semantic representation for this sentence using the Nested Cooper Storage technique in which “a professor” takes scope over “believe.” Assume that “believes that” translates into believe’ of type ⟨t, ⟨e, t⟩⟩. The other expressions should be represented as usual.

(b) Question (a) asks for one reading of the sentence. Please indicate how the other two readings can be derived by sketching at which level you apply which rule (storage, retrieval, or application).

4. DRT

Consider the following sentence:

(5) *If a donkey does’nt like Pedro, it kicks him.*

(a) Give a DRS K5 that represents the semantics of (5). It is not necessary to construct K5 explicitly.

(b) Compute the conditions under which an embedding verifies K5, simplify the result as far as possible, and give the truth-conditions for K5. Note: You don’t have to spell out every single step in the computation, but you should give a sufficient number of intermediate interpretation steps to make the structure of the interpretation process visible.

5. Presuppositions in DRT

Consider the following text:

(6) *Peter knows a professor. She grades his PhD-thesis.*

(a) Give a proto-DRS K6 for (6) that contains α-DRSs. It is not necessary to construct the proto-DRS explicitly.

(b) Show how a DRS that is a correct and plausible semantic representation of (6) can be derived from K4 by application of van der Sandt’s binding and accommodation rules. Please comment on each resolution step.

6. Lexical semantics

(a) Give a Davidsonian representation of both readings of sentence (7) including tense information (just target representation, no derivation!).

(7) Yesterday, an unknown person robbed a bank in Saarbrücken.

(b) Pick one of the readings, and give a Neo-Davidsonian representation for it (use roles agent and patient).

(c) Give appropriate type-theoretic representations for the two adjuncts *yesterday* and *in Saarbrücken* and the representation of the PAST-operator.

(d) Give an appropriate lambda-term for *an unknown person rob- a bank* (i.e., without tense information), and derive the reading of (7) from this represention and the representations given in (c).