START OF QUIZ
Student ID: 31003346,De Jager,Rachelle

Question 1

Topic: Lecture 1
Source: Lecture 1

Describe the properties of bound and free morphemes, and give an example from a language you know. (1)

Question 2

Topic: Lecture 2
Source: Lecture 2

Is a regular expression an example of an FST or an FSA? Explain. (1)

Question 3

Topic: Lecture 4
Source: Lecture 4

Transition-based segmentation is very similar to the SR parser we saw last block, except it uses 2 FIFO structures, and doesn't require a stack. What is different about segmentation so that it doesn't require a stack? (1)

Question 4

Topic: Lecture 2
Source: Lecture 2

Umlaut is a morpho-phonological process that moves a vowel forward in the mouth under certain morphological processes (for example, Hund+PL -> Hünde in German). What might the re-write rule for this example look like? (1)

Question 5

Topic: Lecture 3
Source: Lecture 3

Why is differential entropy a good measure for establishing morpheme boundaries? (1)

Question 6

Topic: Lecture 4
Source: Lecture 4

Garden path sentences are sentences that start with one parse, but need to be reparsed in the middle of the sentence ("The old man the boats." - 'old' changes from an adjective to a noun, and 'man' from a noun to a verb). A bad Chinese word segmentation could result in the same need to re-parse our segmentation after encountering a new word. Of the methods we looked at, which do you think is the most likely to be able to "correct" a segmentation? Explain. (2)

Question 7

Topic: Lecture 3
Source: Lecture 3

In the lab, you compared BPE with a more linguistically-motivated segmentation scheme. Intrinsically, the supervised method performs much better, but typically, BPE and its cousins work much better down-stream. Why do you think that is, taking into account the differences between the two methods? (2)

Question 8

Topic: Lecture 1
Source: Lecture 1

Suppletion is a process by which morphological patterns (called paradigms) merge to form a mixed paradigm. For example, the past tense of "to go" comes from an older verb, "wendan - to turn". Describe how syncretic paradigms might impact a machine learning model, and how we can learn to model them accurately. (2)

Question 9

Topic: Long
Source: Lecture 2

In class, we mostly discussed using FSTs for *inflectional* morphology. What are some difficulties that derivational morphology presents, and how do you think that FSTs could still handle derivational morphology? Give some examples, along with some PseudoFoma that demonstrates this handling. (3)

END OF QUIZ