

Week 1 Quiz

TOTAL POINTS 10

1. True or false? A paradigmatic relation is a relation between two words that tend to *co-occur* with each other, while a syntagmatic relation is between two words that tend to occur in a *similar* context.

1 point

- ☐ True
- ☒ False

2. In a collection of English news articles, which word do you expect to have a higher IDF?

1 point

- ☐ "the"
- ☒ "learning"

3. Suppose the pseudo-document representations for the contexts of the terms A and B in the vector space model are given as follows:

1 point

$d_A = (0.10, 0.50, 0.00, 0.40, 0.00, 0.00)$

$d_B = (0.20, 0.40, 0.30, 0.00, 0.10, 0.00)$

What is the EOWC similarity score?

- ☐ 0.02
- ☐ 1
- ☒ 0.22
- ☐ 0.20

4. True or false? Syntactic analysis (parsing) is an easier task than lexical analysis (part-of-speech tagging).

1 point

- ☒ False

☐ True

5. "A man saw a boy with a telescope." What kind of ambiguity does the sentence have?

1 point

☒ Syntactic ambiguity

☐ Word-level ambiguity

6. In an online text mining application where response time is the key factor to consider, what kind of NLP features can be used? Check all that apply.

1 point

☐ Relation extraction

☒ Word tokenization

☐ Syntactic parsing

☒ POS-tagging

7. True or false? Deeper NLP requires more human effort and usually is less accurate.

1 point

☐ False

☒ True

8. True or false? Word-based representation is not powerful.

1 point

☐ True

☒ False

9. Which of the following is correct about paradigmatic and syntagmatic words relations?

1 point

- ☐ Syntagmatic related words have high context similarity.
- ☐ Paradigmatic related words have high co-occurrence.
- ☒ Monday, Tuesday are words of paradigmatic relation.
- ☐ Syntagmatic relation implies paradigmatic relation.

10. Why does EOWC not work well?

1 point

- ☒ It favors matching rare words.
- ☐ It favors matching frequent terms.
- ☐ It treats words unequally.

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