

**START OF QUIZ**

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## Question 1

Topic: Lecture 5

Source: Lecture 5

In class, we talked about how a "typical" dimensionality for embeddings is in the range of 100-500. What might be some consequences if we estimated too low or too high? (2)

## Question 2

Topic: Lecture 8

Source: Lecture 8

What tools are required to build an entity grid? (not structures - matrices, etc. are interesting, but I'm asking what kind of NLP tools are necessary to fill the grid - there are at least 2. (1)

### Question 3

Topic: Lecture 6

Source: Lecture 6

When running a window-based approach to vector embeddings (such as CBOW or skip-gram), when would it make sense to keep stopwords, and when would it make sense to remove them? (1)

## Question 4

Topic: Lecture 6

Source: Lecture 6

What is the purpose of negative sampling in a Word2Vec model? (1)

## Question 5

Topic: Lecture 8

Source: Lecture 8

Do you think we could use word embeddings for coreference resolution? What kind of assumptions would we be making, and why do you think it might still be a very difficult task?  
(2)

## Question 6

Topic: Lecture 7

Source: Lecture 7

Why do you think that pronouns must be high salience items from previous sentences? (1)

## Question 7

Topic: Lecture 5

Source: Lecture 5

When we were calculating PMI of a symmetric matrix, why is it not a case of double counting the word in our document? ie., why do the counts of (attorney, fun) and (fun, attorney) not count as two counts each of attorney and fun (such as when we are calculating the total sum of the matrix? (2)



## Question 8

Topic: Lecture 7

Source: Lecture 7

Why are we interested in backward-facing centers (Cb). Why not just consider the entities in the current sentence? (1)

## Question 9

Topic: Coding

Source: Coding

Imagine we were trying to find a word that is the best prototype of its synonyms. Write a short function that grabs the lemmas of each synset in wordnet, and calculates which lemma is the best prototype (ie, which lemma is the closest to the centroid of the synset) by using the word embeddings. Ignore words that do not have embeddings in gensim. (3)

**END OF QUIZ**