

**START OF QUIZ**

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## Question 1

Topic: Lecture 8

Source: Lecture 8

Why don't we use a higher-order language model to perform IR? (1)

## Question 2

Topic: Lecture 5

Source: Lecture 5

What advantages do sparse vectors have over dense ones, and vice versa? (1)

### Question 3

Topic: Lecture 8

Source: Lecture 8

What do we mean by interpolation? (1)

## Question 4

Topic: Lecture 7

Source: Lecture 7

What is the purpose of an inverted index? (1)

## Question 5

Topic: Lecture 5

Source: Lecture 5

Why can we be confident that a low-rank approximation of a matrix contains the most important information in a document? (1)

## Question 6

Topic: Lecture 7

Source: Lecture 7

When doing information retrieval, bag-of-words (and even just indicator functions) typically work very well. Explain why context is less important if we have a well-designed query. You may also want to explain your assumptions about a “well-designed” query. (2)

## Question 7

Topic: Lecture 6

Source: Lecture 6

Imagine we performed LDA on the classes in this block. What might their Beta distributions look like? (2)



## Question 8

Topic: Lecture 6

Source: Lecture 6

In some ways, we could consider Beta / Theta distributions themselves to be an embedding of a topic / document. Explain, and explain how we might be able to leverage that. (2)

## Question 9

Topic: Long

Source: Lecture 8

In class, I mentioned that we might want to provide a weighted ranking of documents in an IR system (for example, we might have a list of relevant documents already sorted for relevancy, and we want our IR system to not only return those documents high in the returned document list, but in the same order). How might we modify the MAP metric to reward the ordering of the documents, as well? Explain (use an example, if you have to). (3)

**END OF QUIZ**