

**START OF QUIZ**

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## Question 1

Topic: Lecture 7

Source: Lecture 7

Explain why boolean filtering is usually insufficient for retrieval, and why we normally need some way of scoring the documents. (2)

## Question 2

Topic: Lecture 6

Source: Lecture 6

Why do we need a "human in the loop" for topic modeling? (1)

### Question 3

Topic: Lecture 5

Source: Lecture 5

What impact do sparse matrices have on similarity metrics like cosine similarity? (1)

## Question 4

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 5

Topic: Lecture 8

Source: Lecture 8

In class, I mentioned that high  $k$  value for BM25 TF weighting rewards documents with many, many instances of a term in them. Explain why that's the case. (2)

## Question 6

Topic: Lecture 6

Source: Lecture 6

Why can't we just run an HMM over documents to discover the latent states like we do for POS-tagging? (1)

## Question 7

Topic: Lecture 7

Source: Lecture 7

What is the benefit of evaluating boolean queries using set operations instead of loops? (1)



## Question 8

Topic: Lecture 8

Source: Lecture 8

What are some assumptions that we make when we are interpolating between a document and a corpus? When should we trust the corpus more, and when should we trust the document more? (2)

## Question 9

Topic: Long

Source: Lecture 8

In class, we considered two different types of information retrieval systems - one that uses Boolean terms to find matches, and one that uses a language model to allow for "natural language" queries. Can you think of a way that we might be able to leverage the strengths of both, while minimizing the disadvantages? Briefly explain how that might work. (2)

**END OF QUIZ**