

**START OF QUIZ**

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## Question 1

Topic: Lecture 5

Source: Lecture 5

Explain the logic behind the IDF part of TF-IDF (ie, why does it give higher weights to more "interesting" words?). (1)

## Question 2

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 3

Topic: Lecture 7

Source: Lecture 7

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

## Question 4

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 5

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 6

Topic: Lecture 7

Source: Lecture 7

Why do we generally care more about precision than recall in IR? (1)

## Question 7

Topic: Lecture 8

Source: Lecture 8

What do we mean by interpolation? (1)



## Question 8

Topic: Lecture 5

Source: Lecture 5

Why can we represent a rank- $m$  matrix as the sum of  $m$  rank-1 matrices \*or\* the product of an  $n \times m$  matrix and an  $m \times n$  matrix (ie, what is matrix multiplication doing that we can take advantage of)? Explain. (2)

## Question 9

Topic: Coding

Source: Coding

Write a function that returns the most likely  $n$  documents given a term-document matrix, a smoothing parameter, and a query. (3)

**END OF QUIZ**