START OF QUIZ
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Question 1

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 2

Topic: Lecture 7
Source: Lecture 7

What is the benefit (in terms of efficiency) of placing the most discriminative search terms first in a boolean search? (1)

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

In class, we saw a few topics that we were unable to identify. What could be a cause for such pointless topics (ie, how might we ensure that our topics are better? (2 reasons). (1)

Question 5

Topic: Lecture 8
Source: Lecture 8

What is the intuition behind MAP? (1)

Question 6

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 x m matrix and an m x n matrix (ie, what is matrix multiplication doing that we can take advantage of?)? Explain. (2)

Question 7

Topic: Lecture 8
Source: Lecture 8

In class (and in the lab) you saw some examples of using a language model for IR. How do you think we could incorporate an LLM into the IR pipeline? In what ways do you think an n-gram lm might be more appropriate? (2)

Question 8

Topic: Lecture 6
Source: Lecture 6

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

Question 9

Topic: Long
Source: Lecture 7

Imagine that we have 2 information retrieval systems, and we are evaluating on the same test set, which has 10 relevant documents. The first system returns them in positions [1, 5, 7, 15, 25, 50, 60, 70, 71, 90]. The second returns the documents at positions [2, 3, 6, 8, 10, 62, 80, 83, 91, 95]. Make an argument for each system being better, and provide support for both. Explain which system you would rather use, and why. If there are any other considerations, list them. (3)

END OF QUIZ