

START OF QUIZ

Student ID:

94779345, Wang, Sherry

Question 1

Topic: Lecture 7

Source: Lecture 7

Explain why the cosine similarity between a document and query vector is roughly equivalent to adding up the TF-IDF scores of each word in the document that occurs in the query.
(2)

Question 2

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 3

Topic: Lecture 8

Source: Lecture 8

What do we mean by interpolation? (1)

Question 4

Topic: Lecture 6

Source: Lecture 6

Why don't we just use k-means to cluster document-vectors (sparse or dense)? (1)

Question 5

Topic: Lecture 5

Source: Lecture 5

We often weight our matrices using something like PMI or TF-IDF. Do you think it would make sense to do this after applying SVD? Why or why not? (2)

Question 6

Topic: Lecture 6

Source: Lecture 6

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

Question 7

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 8

Topic: Lecture 7

Source: Lecture 7

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

Question 9

Topic: Coding

Source: Coding

Write a short function that confirms that the sum of n rank-1 matrices is identical to the product of an $n \times k$ matrix and a $k \times n$ matrix. (3)

END OF QUIZ