

**START OF QUIZ**  
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## Question 1

Topic: Lecture 7

Source: Lecture 7

We talked about time and place as completely separate ideas - do you think there would be any benefit to tracking choropleths over time? Briefly explain. (1)

## Question 2

Topic: Lecture 7

Source: Lecture 7

Imagine that we had a strange representation of the date: "Year 23 in the 21st century on the 3rd day of March, at 11 minutes past 17". Using `strptime`, what is the format that we would need to provide to recognize this time?" (1)

## Question 3

Topic: Lecture 5

Source: Lecture 5

SVM ranking takes advantage of the fact that an ordinal problem can be transformed into a binary "larger than" problem by simple subtraction of feature vectors. It's typically done with a linear SVM. Do you think we could apply a similar trick with a neural model? Why or why not? (2)

## Question 4

Topic: Lecture 5

Source: Lecture 5

In class, we said that "fake" fake reviews are often too prototypical when they are generated by hand. Given the tools you're familiar with, how do you think we could generate fake reviews automatically? Do you think they would suffer from the same problem? (2)

## Question 5

Topic: Lecture 8

Source: Lecture 8

In the following tweets, identify at least 5 phenomena that are specific to online data. Give their names, as well as the example you chose:

1. All these sushi pics on my tl are driving me craaaazzy :(
2. @EricAguigam @taylorswift13 Phenomenal bro! I would love to collab with you and your friends asap :)
- 3, Oh yes, sir, that would be quite delightful :(
4. Hi to all my bestfriends/friends out there! :)"> salamat sa mga nag.greet! :) Really Appreciated guise :-\* Godbless y'all :)<3 (2)

## Question 6

Topic: Lecture 6

Source: Lecture 6

Based on the Swartz et al (2013) study of personality on social media, give an example of how emotion classification intersects with the identification of personality traits. (1)

## Question 7

Topic: Lecture 8

Source: Lecture 8

What is code-switching, and why is it a problem for NLP? (1)



## Question 8

Topic: Lecture 6

Source: Lecture 6

Briefly describe valence, arousal, and dominance, and how they are used in emotion detection. (1)

## Question 9

Topic: Long

Source: Lecture 5

A: Feature vector =  $(2,1)$ , rating = 2

B: Feature vector =  $(2,-1)$ , rating = 3

C: Feature vector =  $(-1,-1)$ , rating = 5

If we are doing SVM-based ranking, give at least one feature vector that can be used as a positive example for our binary SVM classifier, and one feature vector that can be used as a negative example.

Secondly, if the weight vector of our trained SVM classifier is  $(2,-2)$ , what is Kendall's Tau for the resulting ordinal classification of these 3 documents? (3)

**END OF QUIZ**