

<u>Course</u> > <u>Week 1</u>... > <u>Compr</u>... > Quiz 10

# Quiz 10

## Problem 1

T TODICITI T		
1/1 point (graded) True or false: Autoencoding is a destructive process, meaning that it is not possible to get an approximation to the original data point given its latent representation.		
True		
<ul><li>False</li></ul>		
Submit		
Problem 2		
1/1 point (graded) For the $k$ -means autoencoder, what is the hidden representation of the data that we hope to reveal?		
The projection for a data point onto a different vector		
The location of the mean for the cluster that each data point belongs to		
The cluster label that each data point belongs to		
The squared distance from each data point to its mean		

Submit

#### Problem 3

1/1 point (graded)

What is a "one-hot" encoding?

- An encoding that cannot be changed as other encodings depend on it
- An encoding that makes a single pass over the data set
- $\ \, \bullet \,$  An encoding which produces a vector where a single element is 1, and the rest are all 0
- A trivial encoding where every data point is mapped to the same value



Submit

## Problem 4

1/1 point (graded)

What kind of relationship between words is captured by co-occurrence probabilities?

- Words with similar frequencies are closely related
- Words of similar length are closely related
- Words which are preceded or succeeded by similar words are closely related
- Words with similar spelling are closely related



Submit

### Problem 5

1/1 point (graded)

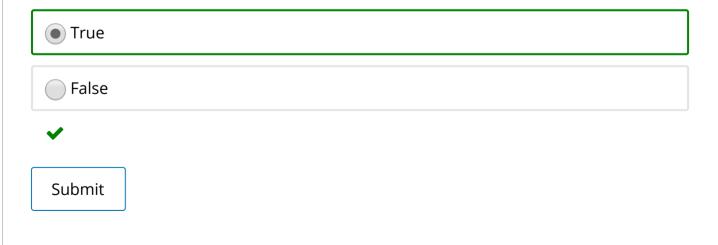
In a feedforward neural net, nodes which aren't input nodes or output nodes are called what?

Hidden units		
Middle units		
Floating nodes		
Intermediary nodes		
<b>✓</b>		
Submit		

#### Problem 6

1/1 point (graded)

True or false: Each layer of the feedforward neural net must be calculated sequentially as the values of any non-input row are calculated from the values of previous rows.



### Problem 7

1/1 point (graded)

You have a neural network with three fully connected layers, each containing 800 nodes. Approximately how many total edges does this graph have?

27/2019	Quiz 10   Comprehension Quiz 10   DSE220x Courseware   edX
800	
2400	
<ul><li>1280000</li></ul>	
512000000	
✓	
Submit	
or neither?	the neural network can best be described as convex, concave, both
convex	
concave	
both	
<ul><li>neither</li></ul>	
<b>✓</b>	
Submit	
Problem 9	
1/1 point (graded)	

Which of the following algorithms would be acceptable to use to optimize the loss function of a very large neural network?

### Problem 10

11/27/2019

1/1 point (graded)

True or false: Dropout is used with neural networks to reduce the time and space complexity of the model.



© All Rights Reserved