

## EN.605.649.82.FA20 Introduction to Machine Learning

Course Modules

Module 11: Deep Learning

Review Test

Submission: Quiz 09-11

## Review Test Submission: Quiz 09-11

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Course EN.605.649.82.FA20 Introduction to Machine Learning

Test Quiz 09-11

Started 11/13/20 5:36 PM

Submitted 11/13/20 5:52 PM

Due Date 11/14/20 11:59 PM

Status Completed

Attempt Grade not available.

Score

Time 16 minutes out of 30 minutes

Elapsed

Instructions Ten multiple choice or true/false questions will be presented on material from Module 11 and 12 in the course. Please complete the quiz in the time allotted. To best evaluate your understanding, you should try to complete the quiz without using notes or online resources; although, using such resources is permitted if necessary. To encourage this, only 30 minutes will be allotted to complete the quiz. You will have two attempts.

Results Submitted Answers, Incorrectly Answered Questions  
Displayed

## Question 1

10 out of 10 points



Which probability distribution is used sample the hidden nodes in a Restricted Boltzmann Machine?

Selected Answer: E. Binomial distribution

## Question 2

10 out of 10 points



What is pretraining in the context of a deep neural network?

Selected Answer: E.  
It is the process whereby the weights of the network are trained layer-wise as a starting point for backpropagation.

## Question 3

10 out of 10 points



Which of the following networks is not a recurrent neural network?

Selected Answer: B. Cascade correlation network

**Question 4**

10 out of 10 points



Who is most often credited with inventing backpropagation?

Selected Answer: B. Rumelhart, Hinton, and Williams

**Question 5**

10 out of 10 points



Which of the following methods is able to learn the structure of a deep neural network?

Selected Answer: E. Cascade correlation

**Question 6**

10 out of 10 points



What is the vanishing gradient problem?

Selected Answer: A.  
It is the situation that arises when gradients are modified by weights and diffuse through the layers.

**Question 7**

10 out of 10 points



Which of the following is an application of an autoencoder?

Selected Answer: A. Signal denoising

**Question 8**

10 out of 10 points



Which probability distribution is used for the energy function in a Restricted Boltzmann Machine?

Selected Answer: D. Boltzmann distribution

**Question 9**

10 out of 10 points



What is the best way to interpret the weights of a competitive learning network after training finishes?

Selected Answer: B.  
The weights indicate the probability of a feature being present, given the cluster.

**Question 10**

0 out of 10 points



What problem needed to be solved so that multi-layer perceptrons could be trained?

Selected Answer: B. The global optimization problem.

Friday, November 13, 2020 5:53:00 PM EST

← OK