1. What is the main function of backpropagation when training a Neural Network? 1 / 1 point

- ○ Preprocess the input layer
- ◉ Make adjustments to the weights
- ○ Make adjustments to the loss function
- ○ Propagate the output on the output layer

✓ Correct
Correct! You can find more information on the lesson Convolutional Neural Networks.

2. (True/False) The “vanishing gradient” problem can be solved using a different activation function. 1 / 1 point

- ◉ True
- ○ False

✓ Correct
Correct! You can find more information on the lesson Convolutional Neural Networks.

3. (True/False) Every node in a neural network has an activation function. 1 / 1 point

- ◉ True
- ○ False

✓ Correct
Correct! You can find more information on the lesson Convolutional Neural Networks.

4. These are all activation functions except: 1 / 1 point

- ○ Sigmoid
- ○ Hyperbolic tangent
- ◉ Leaky hyperbolic tangent
- ○ ReLu

✓ Correct
Correct! You can find more information on the lesson Convolutional Neural Networks.

5. Deep Learning uses deep Neural Networks for all these uses, except: 1 / 1 point

- ○ As an alternative to manual feature engineering
- ○ To uncover usually unobserved relationships in the data
- ◉ Cases in which explainability is the main objective

- ◯ As a classification and regression technique

✓ Correct
Correct! You can find more information in the lesson Convolutional Neural Networks.

6. These are all activation functions for CNN, except: 1 / 1 point

- ◯ Regularization penalty in cost function
- ◯ Dropout
- ◯ Early stopping
- ◉ Pruning

✓ Correct
Correct! You can find more information in the lesson Convolutional Neural Networks.

7. (True/False) Optimizer approaches for Deep Learning Regularization use gradient descent: 1 / 1 point

- ◯ True
- ◉ False

✓ Correct
Correct! You can find more information in the lesson Convolutional Neural Networks.

8. Stochastic gradient descent is this type of batching method: 1 / 1 point

- ◉ online learning
- ◯ mini batch
- ◯ full batch
- ◯ stochastic batch

✓ Correct
Correct! You can find more information in the lesson Convolutional Neural Networks

9. The main purpose of data shuffling during the training of a Neural Network is to aid convergence and use the data in a different order each epoch. 1 / 1 point

- ◉ True
- ◯ False

✓ Correct
Correct! You can find more information in the lesson Convolutional Neural Networks

10. Which of the following IS NOT a benefit of Transfer Learning? 1 / 1 point

- ○ Reducing time required to tune hyper-parameters
- ○ Reducing the impact of the vanishing gradient problem on early layers
- ◉ Improving the speed at which large models can be trained from scratch
- ○ Conveying computational benefits when problems share similar primitive features.

✓ Correct
Correct! You can find more information on the lesson Transfer Learning.

11. Which of the following statements about using a Pooling Layer is TRUE? 1 / 1 point

- ◉ Pooling can reduce both computational complexity and overfitting.
- ○ Pooling can reduce computational complexity, at the cost of overfitting.
- ○ Pooling increases computational complexity, but helps with overfitting.
- ○ Pooling reduces the likelihood of overfitting, but generally does not impact computational complexity.

✓ Correct
Correct! You can find more information on the lesson Convolutional Neural Networks Architectures.