1. The backpropagation algorithm updates which of the following? 1 / 1 point

- ○ The parameters and activations.
- ○ The activations only.
- ◉ The parameters only.
- ○ The losses only.

✓ Correct
Correct!

2. What of the following about the activation functions is true? 1 / 1 point

- ○ They are optimization algorithms that update values of the model parameters.
- ○ They tell us about how computationally expensive a neural network is.
- ○ They evaluate how well the model has performed on the training data.
- ◉ They add non-linearity into the model, allowing the model to learn complex pattern.

✓ Correct
Correct!

3. What is true regarding the backpropagation rule? 1 / 1 point

- ○ It is a feed forward neural network.
- ◉ The actual output is determined by computing the output of neurons in each hidden layer
- ○ It prevents overfitting
- ○ It can be used to update the hyperparameters of a neural network

✓ Correct
Correct!

4. Which option correctly lists the steps to build a linear regression model using Keras? 1 / 1 point

1. Use `fit()` and specify the number of epochs to train the model for.
2. Create a Sequential model with the relevant layers.
3. Normalize the features with ` layers.Normalization()` and apply `adapt()`.
4. Compile using `model.compile()` with specified optimizer and loss.

- ○ 2, 4, 3, 1
- ◉ 3, 2, 4, 1
- ○ 3, 2, 1, 4
- ○ 3, 1, 2, 4

✓ Correct

Correct! It’s important to normalize the features before building the model because the scale of the outputs and gradients are impacted by that of the inputs. Then, you can create a Sequential model including this layer, compile, and fit it on the training data.

5. (True/False) Keras provides one approach to build a model: by defining a Sequential model. 1 / 1 point

- ○ True
- ◉ False

✓ Correct
Correct! There are two approaches in Keras. The other method is to use the functional API.