Week 3 Quiz

1.
Question 1

If X is the standard notation for the input to an RNN, what are the standard notations for the outputs?

1 / 1 point

Y

H

Y(hat) and H (Correct)

H(hat) and Y

2.
Question 2

What is a sequence to vector if an RNN has 30 cells numbered 0 to 29

1 / 1 point

The average Y(hat) for all 30 cells

The Y(hat) for the last cell (Correct)

The Y(hat) for the first cell

The total Y(hat) for all cells

3.
Question 3

What does a Lambda layer in a neural network do?

1 / 1 point

Allows you to execute arbitrary code while training (Correct)

There are no Lambda layers in a neural network

Changes the shape of the input or output data

Pauses training without a callback

4.
Question 4

What does the axis parameter of tf.expand_dims do?

1 / 1 point

Defines the dimension index at which you will expand the shape of the tensor (Correct)

Defines if the tensor is X or Y

Defines the axis around which to expand the dimensions

Defines the dimension index to remove when you expand the tensor

5.
Question 5

A new loss function was introduced in this module, named after a famous statistician. What is it called?

1 / 1 point
Hawking loss

Hubble loss

Hyatt loss

Huber loss (Correct)

6.
Question 6

What's the primary difference between a simple RNN and an LSTM

1 / 1 point
LSTMs have multiple outputs, RNNs have a single one

In addition to the H output, LSTMs have a cell state that runs across all cells(Correct)

In addition to the H output, RNNs have a cell state that runs across all cells

LSTMs have a single output, RNNs have multiple

7.
Question 7

If you want to clear out all temporary variables that tensorflow might have from previous sessions, what code do you run?

1 / 1 point
tf.cache.backend.clear_session()

tf.keras.backend.clear_session() (Correct)

tf.cache.clear_session()

tf.keras.clear_session

8.
Question 8

What happens if you define a neural network with these two layers?

tf.keras.layers.Bidirectional(tf.keras.layers.LSTM(32)),

tf.keras.layers.Bidirectional(tf.keras.layers.LSTM(32)),

tf.keras.layers.Dense(1),

1 / 1 point
Your model will compile and run correctly

Your model will fail because you have the same number of cells in each LSTM

Your model will fail because you need return_sequences=True after each LSTM layer

Your model will fail because you need return_sequences=True after the first LSTM layer (Correct)