

# Week 3 Quiz

LATEST SUBMISSION GRADE

100%

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

☐

$Y$

☐

$H$

☒

$\hat{Y}$  and  $H$

☐

$\hat{H}$  and  $Y$

Correct

2.

Question 2

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

1 / 1 point

☒

The  $\hat{Y}$  for the last cell

☐

The average  $\hat{Y}$  for all 30 cells

☐

The  $\hat{Y}$  for the first cell

☐

The total  $\hat{Y}$  for all cells

**Correct**

3.

Question 3

**What does a Lambda layer in a neural network do?**

**1 / 1 point**

☐

**Pauses training without a callback**

☐

**There are no Lambda layers in a neural network**

☒

**Allows you to execute arbitrary code while training**

☐

**Changes the shape of the input or output data**

**Correct**

4.

Question 4

**What does the axis parameter of `tf.expand_dims` do?**

**1 / 1 point**

☐

**Defines the axis around which to expand the dimensions**

☐

**Defines if the tensor is X or Y**

☐

**Defines the dimension index to remove when you expand the tensor**

☒

**Defines the dimension index at which you will expand the shape of the tensor**

**Correct**

5.

Question 5

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

1 / 1 point



Hyatt loss



Hawking loss



Huber loss



Hubble loss

**Correct**

6.

Question 6

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

1 / 1 point



LSTMs have a single output, RNNs have multiple



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



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



LSTMs have multiple outputs, RNNs have a single one

**Correct**

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.keras.clear_session`



`tf.keras.backend.clear_session()`



`tf.cache.backend.clear_session()`



`tf.cache.clear_session()`

**Correct**

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 fail because you need `return_sequences=True` after each LSTM layer



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 the first LSTM layer



Your model will compile and run correctly

**Correct**