✓ **Congratulations! You passed!**

Grade received 100%   **Latest Submission Grade** 100%   **To pass** 80% or higher

[Go to next item]

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

   ○ H(hat) and Y

   ✓ **Correct**

2. What is a sequence to vector if an RNN has 30 cells numbered 0 to 29   1 / 1 point

   ○ The Y(hat) for the second cell

   ⦿ The Y(hat) for the last cell

   ○ The total Y(hat) for all cells

   ○ The average Y(hat) for all 30 cells

   ✓ **Correct**

3. What does a Lambda layer in a neural network do?   1 / 1 point

   ⦿ Allows you to execute arbitrary code while training

   ○ Pauses training without a callback

   ○ Changes the shape of the input or output data

   ○ There are no Lambda layers in a neural network

   ✓ **Correct**

4. What does the axis parameter of tf.expand_dims do?   1 / 1 point

   ○ Defines the axis around which to expand the dimensions

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

   ○ Defines if the tensor is X or Y

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

   ✓ **Correct**

5. A new loss function was introduced in this module, named after a famous statistician. What is it called?   1 / 1 point

   ○ Hubble loss

   ○ Hawking loss

   ○ Hyatt loss

   ⦿ Huber loss

   ✓ **Correct**

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

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

○ LSTMs have a single output, RNNs have multiple

○ 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

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

⦿ tf.keras.backend.clear_session()

○ tf.cache.clear_session()

○ tf.keras.clear_session

○ tf.cache.backend.clear_session()

✓ Correct

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),

○ 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