

1. What’s the primary difference between a simple RNN and an LSTM

1 / 1 point

- ☐ 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
- ☐ LSTMs have a single output, RNNs have multiple
- ☒ In addition to the H output, LSTMs have a cell state that runs across all cells

✔ Correct

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

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- ☐ tf.cache.backend.clear_session()
- ☐ tf.keras.clear_session
- ☒ tf.keras.backend.clear_session()
- ☐ tf.cache.clear_session()

✔ Correct

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

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- ☒ Allows you to execute arbitrary code while training
- ☐ There are no Lambda layers in a neural network
- ☐ Changes the shape of the input or output data
- ☐ Pauses training without a callback

✔ Correct

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

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- ☐ Y
- ☐ H
- ☒ Y(hat) and H
- ☐ H(hat) and Y

✔ Correct

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

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- ☐ Hubble loss
- ☐ Hawking loss
- ☐ Hyatt loss
- ☒ Huber loss

✔ Correct

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

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- ☐ The total Y(hat) for all cells
- ☐ The Y(hat) for the second cell
- ☐ The average Y(hat) for all 30 cells
- ☒ The Y(hat) for the last cell

✔ Correct

7. What does the axis parameter of tf.expand_dims do?

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- ☒ Defines the dimension index at which you will expand the shape of the tensor
- ☐ 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

✔ Correct

8. What happens if you define a neural network with these three layers?

1 / 1 point

```
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 fail because you have the same number of cells in each LSTM
- ☐ Your model will compile and run correctly
- ☐ 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