

Started on	Wednesday, 5 February 2025, 12:16 PM
State	Finished
Completed on	Wednesday, 5 February 2025, 12:18 PM
Time taken	1 min 48 secs
Marks	10.00/10.00
Grade	100.00 out of 100.00

Question 1

Complete

Mark 1.00 out of 1.00

What is the primary reason Transformers outperform RNNs in NLP tasks?

- ☐ a. They rely on recurrence
- ☐ b. They require fewer parameters
- ☒ c. They handle long-range dependencies efficiently
- ☐ d. They use convolutions

Question 2

Complete

Mark 1.00 out of 1.00

What is a common application of the Transformer model?

- ☐ a. Object detection
- ☐ b. Image segmentation
- ☐ c. Speech synthesis
- ☒ d. Machine translation

Question 3

Complete

Mark 1.00 out of 1.00

What is the purpose of the softmax function in self-attention?

- ☐ a. To reduce computational complexity
- ☐ b. To activate neurons
- ☒ c. To normalize attention scores
- ☐ d. To update model weights

Question 4

Complete

Mark 1.00 out of 1.00

Who introduced the Transformer model in the paper "Attention Is All You Need"?

- ☒ a. Vaswani et al.
- ☐ b. Geoffrey Hinton
- ☐ c. Andrew Ng
- ☐ d. Yann LeCun

Question 5

Complete

Mark 1.00 out of 1.00

What is a major advantage of pre-trained Transformer models?

- ☐ a. They do not need large datasets
- ☐ b. They require no fine-tuning
- ☐ c. They are computationally inexpensive
- ☒ d. They generalize well to new tasks

Question 6

Complete

Mark 1.00 out of 1.00

Which model is based on the Transformer architecture?

- ☐ a. LSTM
- ☐ b. CNN
- ☐ c. ResNet
- ☒ d. BERT

Question 7

Complete

Mark 1.00 out of 1.00

Why do Transformers use positional encodings?

- ☐ a. To reduce overfitting
- ☒ b. To inject the order of words into the model
- ☐ c. To increase model depth
- ☐ d. To improve the efficiency of training

Question 8

Complete

Mark 1.00 out of 1.00

How does the attention mechanism compute relevance scores?

- ☐ a. Using recurrent units
- ☐ b. Using dropout
- ☐ c. Using max pooling
- ☒ d. Using dot-product similarity

Question 9

Complete

Mark 1.00 out of 1.00

How does Transformer differ from CNNs in feature extraction?

- ☐ a. Transformers use pooling layers
- ☐ b. Transformers use stride-based filters
- ☐ c. Transformers use weight sharing
- ☒ d. Transformers use self-attention instead of convolutions

Question 10

Complete

Mark 1.00 out of 1.00

Which of the following is NOT a part of the Transformer architecture?

- ☐ a. Decoder
- ☒ b. Recurrent unit
- ☐ c. Encoder
- ☐ d. Self-attention