

1. Consider the sentence, "she loves watching football." In the word2vec model, what will be the context and target word(s) for "t=2"? (Take the window width as 1)

1 point

- ☐ Context: loves, football; Target word: watching
- ☐ Context: she, watching; Target word: loves
- ☐ Context: loves, watching; Target word: she, football
- ☐ Context: she, football; Target word: loves, watching

2. Consider the phrase "quick fox jumps over lazy dog." Using the skip-gram model, find the context and target word for "t=3." (Take the window width as 2)

1 point

- ☐ Target word: over; Context: lazy, dog
- ☐ Target word: over; Context: fox, jumps, lazy, dog
- ☐ Target word: over; Context: jumps, lazy, dog
- ☐ Target word: over; Context: quick, fox, jumps

3. Which generative AI model matches the description below?

1 point

"It is a type of simulated neural network that uses time series data. It is designed to remember past information."

- ☐ Word2vec's neural network
- ☐ Generative adversarial networks (GANs)
- ☐ Feedforward neural network
- ☐ Recurrent neural networks (RNNs)

4. Fill in the blank:

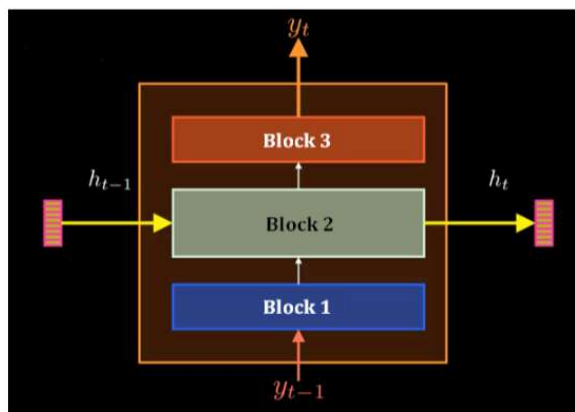
1 point

In general, __ (Blank 1) __ models are more difficult to train compared to recurrent neural networks (RNNs). However, the aim is to minimize the __ (Blank 2) __.

- ☐ Blank 1: Sequence-to-sequence; Blank 2: Cross-entropy loss
- ☐ Blank 1: Word2vec; Blank 2: Divergence
- ☐ Blank 1: Sequence-to-sequence; Blank 2: Divergence
- ☐ Blank 1: N-gram; Blank 2: Cross-entropy loss

5. Identify the blocks in the RNN decoder.

1 point



- ☐ Block 1: Linear layer; Block 2: Embedding layer; Block 3: RNN cell
- ☐ Block 1: Embedding layer; Block 2: RNN cell; Block 3: Linear layer
- ☐ Block 1: Linear layer; Block 2: RNN cell; Block 3: Embedding layer
- ☐ Block 1: Embedding layer; Block 2: Linear layer; Block 3: RNN cell

6. Which of the following expressions is used to calculate the F1 score?

1 point

- ☐ $2 \times (\text{Precision} \times \text{Recall}) / (\text{Precision} + \text{Recall})$
- ☐ $\frac{\text{CountMatch}}{\text{CountGenerated}} = \frac{\text{Number of common n-grams}}{\text{Number of n-grams in } H}$
- ☐ $e^{-\frac{1}{2} \sum_i P(\omega_i) \log(Q(\omega_i))}$
- ☐ $\frac{\text{CountMatch}}{\text{CountReference}} = \frac{\text{Number of common n-grams}}{\text{Number of n-grams in } R}$

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