MCQ Assessment - For Students

Question 1: Which of the following neural network architectures has been widely used for sequence modeling and transduction tasks?

a: Convolutional Neural Networks

b: Long Short-Term Memory

c: Radial Basis Function Networks

d: Hopfield Networks

Question 2: What is the main limitation of recurrent models in terms of parallelization?

a: Memory constraints

b: Limited computational resources

c: Sequential nature of computation

d: Lack of attention mechanisms

Question 3: Which researcher proposed replacing recurrent neural networks with self-attention in the Transformer model?

a: Jakob

b: Ashish

c: Noam

d: Niki

Question 4: What is a key advantage of the Transformer model over recurrent models?

a: Faster training time

b: Higher translation quality

c: Increased parallelization

d: Improved accuracy on small datasets

Question 5: Which attention mechanism is used in the Transformer model?

a: Additive attention

b: Dot-product attention

c: Multi-head attention

d: Convolutional attention

Question 6: What is the benefit of using attention mechanisms in sequence models?

a: Modeling dependencies without regard to distance

b: Reducing the number of parameters

c: Improving computational efficiency

d: Enhancing interpretability

Question 7: Which of the following researchers was not involved in the design and implementation of the Transformer models?

a: Ashish

b: Illia

c: Llion

d: Niki

Question 8: What is the main computational advantage of the Transformer model?

a: It eliminates sequential computation

b: It reduces memory consumption

c: It parallelizes computation across examples

d: It improves model performance on long sequences