Here are 10 MCQs about Deep Learning in markdown format:

1. **What is the core concept behind Deep Learning?** a. Using shallow neural networks with a few layers b. Employing algorithms that explicitly follow programmed instructions c. Training neural networks with many layers to learn complex patterns d. Focusing solely on linear regression models
2. **Which of the following is NOT a common activation function in Deep Learning?** a. ReLU b. Sigmoid c. TanH d. Euclidean Distance
3. **What is the purpose of a loss function in Deep Learning?** a. To activate neurons in the network b. To measure the performance of the model and guide optimization c. To normalize the input data d. To prevent overfitting
4. **Which optimization algorithm is widely used in Deep Learning to update the weights of a neural network?** a. Principal Component Analysis (PCA) b. Linear Discriminant Analysis (LDA) c. Gradient Descent d. K-Means Clustering
5. **Convolutional Neural Networks (CNNs) are particularly effective for which type of task?** a. Natural Language Processing b. Time Series Analysis c. Image Recognition d. Tabular Data Analysis
6. **Recurrent Neural Networks (RNNs) are designed to handle which type of data?** a. Image data b. Sequential data c. Unstructured data d. Categorical data
7. **What is the phenomenon called when a Deep Learning model performs well on training data but poorly on unseen data?** a. Underfitting b. Overfitting c. Gradient Vanishing d. Exploding Gradients
8. **Which technique is commonly used to reduce overfitting in Deep Learning models?** a. Increasing the complexity of the model b. Using more training data c. Decreasing the learning rate d. Removing activation functions
9. **Backpropagation algorithm is used for:** a. Forward pass in neural networks b. Calculating the output of a neural network c. Updating the weights of a neural network based on the error d. Initializing the weights of a neural network
10. **Which of the following is a popular Deep Learning framework?** a. Scikit-learn b. Pandas c. TensorFlow d. NumPy

Answer Key: 1. c 2. d 3. b 4. c 5. c 6. b 7. b 8. b 9. c 10. c