Machine Learning Quiz

Q1: Which of the following is a supervised learning algorithm?

A) K-Means Clustering
B) Decision Tree
C) DBSCAN
D) Principal Component Analysis (PCA)

Answer: A) K-Means Clustering (Incorrect)

Q2: In gradient descent, which of the following is used to update the weights?

A) Loss Function
B) Learning Rate
C) Activation Function
D) Hyperparameter Tuning

Answer: B) Learning Rate (Correct)

Q3: Which of the following techniques is best suited for reducing overfitting?

A) Increasing the number of parameters
B) Using dropout in neural networks
C) Reducing the size of the dataset
D) Ignoring feature scaling

Answer: C) Reducing the size of the dataset (Incorrect)

Q4: Which activation function is commonly used in binary classification problems?

A) Softmax
B) ReLU
C) Sigmoid
D) Tanh

Answer: C) Sigmoid (Correct)

Q5: What is the main purpose of Principal Component Analysis (PCA)?

A) To perform classification
B) To generate synthetic data
C) To reduce the dimensionality of data
D) To cluster data into groups

Answer: D) To cluster data into groups (Incorrect)