

1. What is Machine Learning?

Machine learning involves creating algorithms that allow computers to learn from and make predictions or decisions based on data.

2. Explain the concept of supervised learning.

Supervised learning uses labeled examples, where the model learns from the input-output mapping in the data.

3. What is the difference between classification and regression?

Classification outputs a class label, like predicting "yes" or "no," while regression outputs a continuous variable like temperature or salary.

4. Define overfitting and how to prevent it.

Overfitting happens when a model memorizes the training data instead of learning the general patterns. Techniques like dropout and early stopping can help prevent it.

5. What is deep learning?

Deep learning is a type of machine learning where neural networks with many layers are used to handle large datasets and complex problems.