

Machine Learning Fundamentals and Statistics

Data Science · Answer Key · 6 Questions

1. Which machine learning problem involves assigning inputs into groups based on feature similarity?

- A) Regression
- B) Clustering**
- C) Classification
- D) Association

2. Which algorithm is mentioned as an example for clustering?

- A) K-Means**
- B) Linear Regression
- C) Decision Tree
- D) Random Forest

3. What type of learning task aims to discover rules like 'people who buy X also tend to buy Y'?

- A) Clustering
- B) Classification
- C) Association**
- D) Reinforcement Learning

4. In the roadmap for building a machine learning system, what is the step that typically follows data preprocessing?

- A) Prediction
- B) Evaluation
- C) Learning/Algorithm**
- D) Hyperparameter Tuning

5. What statistical value is commonly used for a 95% confidence interval based on the normal distribution?

- A) 1.00
- B) 1.645
- C) 1.96**
- D) 2.58

6. When calculating a confidence interval for a population mean, what does the 'z' value represent?

A) Standard deviation

B) Standard variate

C) Sample size

D) Variance