1. In the sense of machine learning, what is a model? What is the best way to train a model?

2. In the sense of machine learning, explain the "No Free Lunch" theorem.

3. Describe the K-fold cross-validation mechanism in detail.

4. Describe the bootstrap sampling method. What is the aim of it?

5. What is the significance of calculating the Kappa value for a classification model? Demonstrate how to measure the Kappa value of a classification model using a sample collection of results.

6. Describe the model ensemble method. In machine learning, what part does it play?

7. What is a descriptive model's main purpose? Give examples of real-world problems that descriptive models were used to solve.

8. Describe how to evaluate a linear regression model.

9. Distinguish :

1. Descriptive vs. predictive models

2. Underfitting vs. overfitting the model

3. Bootstrapping vs. cross-validation

10. Make quick notes on:

1. LOOCV.

2. F-measurement

3. The width of the silhouette

4. Receiver operating characteristic curve