



**SNS COLLEGE OF ENGINEERING**  
Kurumbapalayam (Po), Coimbatore – 641 107



**AN AUTONOMOUS INSTITUTION**

Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai

## **Unit II**

### **2 marks**

- Define Gini Index in Decision Tree.
- Compare Bagging and Boosting.
- Define Bayes' theorem with formula.
- Demonstrate Ensemble Learning in ML and name its three methods.
- Advantages and disadvantages of Naive Bayes classifier
- Define Bagging.
- Define Boosting.
- Define Stacking.
- What is Gradient Boosting? Write the advantages and disadvantages of using it.

### **14 marks**

- Analyze Naives Bayes Classifier algorithm.
- Inspect the Decision Tree algorithm with an example.
- Examine Bayes' Theorem in Machine Learning.
- Categorize Ensemble Methods explaining each with advantages and disadvantages.

## **Unit III**

### **2 marks**

- Explain Random Variables.
- Infer the advantages of Independent Component Analysis?
- List four types of Factor analysis.
- Explain Marginal probability.
- Infer the two applications of Principal Component Analysis Algorithm.
- List the methods of Clustering used in Machine Learning.

### **14 marks**

- Compare the different Methods of Clustering.
- Dissect Expectation maximization algorithm in Machine Learning.
- Develop Dimensionality reduction with suitable exmples.
- Examine K Means clustering algorithm with illustrative examples
- Analyze Principal Component analysis with real time applications.
- Explain in detail Factor analysis with suitable diagrams.
- Develop Independent Component analysis with examples.
- Analyze Linear Discriminant analysis with real world examples.

