Statistical Machine Learning (CSET211)

Mid Sem Practice Questions (ODD 2022)

Question 1: Explain the concept of Machine learning.

Question 2: Discuss the type of machine learning algorithms.

Question 3: Discuss support vector in SVM.

Question 4: Define classifiers and regressions.

Question 5: What is the role of E-step in EM algorithms?

Question 6: Discusses overfitting and underfitting in training of a ML model.

Question 7: Define clustering with appropriate algorithm.

Question 8: Illustrate the operation of Decision tree algorithm on following training data. Consider information gain as attribute measures

PlayTennis: training examples

Day	Outlook	Temperature	Humidity	Wind	PlayTennis
D1	Sunny	Hot	High	Weak	No
D2	Sunny	Hot	High	Strong	No
D3	Overcast	Hot	High	Weak	Yes
D4	Rain	Mild	High	Weak	Yes
D5	Rain	Cool	Normal	Weak	Yes
D6	Rain	Cool	Normal	Strong	No
D7	Overcast	Cool	Normal	Strong	Yes
D8	Sunny	Mild	High	Weak	No
D9	Sunny	Cool	Normal	Weak	Yes
D10	Rain	Mild	Normal	Weak	Yes

Question 9: How is Bayes theorem used in machine learning. How naïve bayes algorithm is different from bayes theorem.

Question 10: How we can use SVM classifier to classify non-liner data explain the steps with example

Question 11: Discussion least square method for regression purpose with example