MACHINE LEARNING-WORKSHEET 2

1. Which of the following are disadvantages of using Hard Margin SVM classifier?

Ans-

B) They cannot be used when the data is not completely linearly separable while allowing no errors.
C) They are not optimal to use in case of outliers.

2. Which of the following statements are true regarding maximal margin classifier?

Ans- D) All of the above.

3. Which of the following statements are true regarding soft margin SVM classifier?

Ans-

A) They are less sensitive to outliers and can be used even in their presence.

C) They allow some degree of errors or misclassification.

D) They can be used in case data is not completely linearly separable.

4. Which of the following statements are true regarding SVMs?

Ans-

A) They take the data from lower dimensional space to some higher dimensional space in case the data is not likely to be linearly separable.

B) They use the kernel tricks to escape the complex computations required to transform the data.

5. Which of the following Statements are true regarding the Kernel functions used in SVM?

Ans- C) The data product values given by the kernel functions are used to find the classifier in the higher dimensional space.

6. How can SVM be classified?

Ans- C) It is a model trained using supervised learning. It can be used for classification and regression.

7. The quality of an SVM model depends upon:

Ans- D) All of the above

8. The SVM's are less effective when:

Ans- C) The data is noisy and contains overlapping points.

9. What would happen when you use very small C (C~0)?

Ans- A) Misclassification would happen.

10. What do you mean by generalization error in terms of the SVM?

Ans-B) How accurately the SVM can predict outcomes for unseen data.