

## MACHINE LEARNING

1. Which of the following are disadvantages of using Hard Margin SVM classifier?  
**B) They cannot be used when the data is not completely linearly separable while allowing no errors.**
  2. Which of the following statements are true regarding maximal margin classifier?  
**B) It's the classifier for which the margin length or the distance between the closest data-point on either side of the classifier and the classifier is maximized.**
  3. Which of the following statements are true regarding soft margin SVM classifier?  
**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?  
**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?  
**A) These functions give value of the dot product of pairs of data-points in the desired higher dimensional space without even explicitly converting the whole data into higher dimensional space.**  
**B) 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?  
**A) It is a model trained using supervised learning. It can be used for classification not for regression.**
  7. The quality of an SVM model depends upon:  
**A) Selection of Kernel**  
**B) Kernel Parameters**  
**C) Soft Margin Parameter C**  
**D) All of the above**
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8. The SVM's are less effective when:  
**C) The data is noisy and contains overlapping points.**
  9. What would happen when you use very small C ( $C \sim 0$ )?  
**A) Misclassification would happen.**
  10. What do you mean by generalization error in terms of the SVM?  
**A) How accurately the SVM can predict outcomes for unseen data.**
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