Manarat International University (MIU)
Department of Computer Science and Engineering
Artificial Intelligence (CSE-411)
Lab Quiz

Full Points: 20   Time: 30 Minutes

ID …………………………………………………………………………...

1   **Tick the following Multiple Choice Questions.**   4

a. Which of the following is a way to reduce Skewness of a variable
   (1) Taking log the skewed variable.
   (2) Dividing each value of the skewed variable by its standard deviation
   (3) Normalizing the skewed variable
   (4) Standardizing the skewed variable

b. Which of the following techniques help in reducing overfitting.
   (1) Dimensionality reduction techniques
   (2) Regularization techniques
   (3) Cross-validation techniques
   (4) All of the above

c. Which of the following algorithm doesn't require any training period.
   (1) SVM
   (2) KNN
   (3) Decision Tree
   (4) Naive Bayes

d. Which of the following is an ensemble learning algorithm.
   (1) Adaboost
   (2) Gradient Boosting Machine (GBM)
   (3) XGBoost (Extreme Gradient Boosting)
   (4) All of the above

2   **Write the equations for following algorithms.**   4
   (1) RMSE (Root Mean Square Error)

   (2) R Squared (R2) Error

   (3) Mahalanobis Distance

(4) Jaccard Coefficients

3   What do you mean by **Curse of Dimensionality**? What are the techniques available for   4
Dimensionality Reduction ?

4 What cross-validation technique you use in this project. Explain why you prefer this technique ? 4

5   What techniques you have employed to improve your score in the contest.   4