## WORKSHEET SET 1 - MACHINE LEARNING 1 ANSWERS

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A1. A) Least Square Error

A2. A) Linear regression is sensitive to outliers

A3. B) Negetive

A4. A) Regression

A5. C) Low bias and high variance

A6. B) Predictive model

A7. D) Regularization

A8. D) SMOTE

A9. A) TPR and FPR

A10. B) False

A11. B) Apply PCA to project high dimensional data

A12. A) We don't have to choose the learning rate

B) It becomes slow when number of features is very large

A13. Regularization techniques are used to plot the data points with high variance. Regularization helps to avoid the possibility of underfitting and overfitting curves made while plotting the data points. It provides us the best fit optimized plot to represent the dataset.

A14. Below mentioned algorithms are used in Regularization:

- 1. Ridge Regression
- 2. Least Absolute Shrinkage and Selection Operator Regression (LASSO)
- 3. Elastic-Net Regression

A15. The term error present in linear regression equation refers to the effect of missing data values on the relation between the dependent and independent variables. For example effect on variance of data, central tendencies like mean, mode, median etc.