Ans 1) A) Least Square Error

Ans 2) A) Linear regression is sensitive to outliers

Ans 3) B) Negative

Ans 4) B) Correlation

Ans 5) C) Low bias and high variance

Ans 6) B) Predictive model

Ans 7) D) Regularization

Ans 8) D) SMOTE

Ans9) A) TPR and FPR

Ans 10) B) False

Ans 11) B) Apply PCA to project high dimensional data

Ans 12) A) We don't have to choose the learning rate.
B) It becomes slow when number of features is very large.

Ans 13) Regularization refers to techniques that are used to calibrate machine learning models in order to minimize the adjusted loss function and prevent overfitting or underfitting.

Ans 14) There are three main regularization techniques, namely:

- Ridge Regression (L2 Norm)
  Ridge regression is also called L2 norm or regularization. When using this technique, we add the sum of weight's square to a loss function.
- Lasso (L1 Norm)
  This technique is different from ridge regression as it uses absolute weight values for normalization.
- Dropout
  Dropout is a regularization technique used in neural networks. It prevents complex co-adaptations from other neurons.

Ans 15) The standard error of the regression, also known as the standard error of the estimate, represents the average distance that the observed values fall from the regression line. Conveniently, it tells you how wrong the regression model is on average.