Q1: Which of the following methods do we use to find the best fit line for data in Linear Regression?
A1: A) Least Square Error

Q2: Which of the following statements is true about outliers in linear regression?
A1: A) Linear regression is sensitive to outliers

Q3: A line falls from left to right if a slope is
A3: B) Negative

Q4: Which of the following will have symmetric relation between dependent variable and independent variable?
A4: B) Correlation

Q5: Which of the following is the reason for over-fitting?
A5: C) Low bias and high variance

Q6: If output involves label then that model is called as:
A6: B) Predictive model

Q7: Lasso and Ridge regression techniques belong to
A7: D) Regularization

Q8: To overcome an imbalance dataset, which technique can be used?
A8: D) SMOTE

Q9: The AUC Receiver Operator Characteristic (AUCROC) curve is an evaluation metric for binary classification problems. It uses _____ to make a graph?
A9: A) TPR and FPR

Q10: In AUC Receiver Operator Characteristic (AUCROC) curve for the better model area under the curve should be less
A10: True

Q11: Pick the feature extraction from below:
A11: B) Apply PCA to project high dimensional data

Q12: Which of the following is true about the Normal Equation used to compute the coefficient of the Linear Regression?
A12: A and B.

Q13: Explain the term regularization?
A13: 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. Using Regularization, we can fit our machine learning model appropriately on a given test set and hence reduce the errors in it.

Q14: Which particular algorithms are used for regularization?

A14: Ridge Regression (L2 Norm), Lasso (L1 Norm), Dropout

Q15: Explain the term error present in linear regression equation?
A15: An error term represents the margin of error within a statistical model; it refers to the sum of the deviations within the regression line, which provides an explanation for the difference between the theoretical value of the model and the actual observed results. The regression line is used as a point of analysis when attempting to determine the correlation between one independent variable and one dependent variable.