***Q1. Which of the following methods do we use to find the best fit line for data in Linear Regression?***

**Answer:** A) Least Square Error

***Q2. Which of the following statement is true about outliers in linear regression?***

**Answer:** A) Linear regression is sensitive to outliers

***Q3. A line falls from left to right if a slope is _____?***

**Answer:** A) Positive

***Q4. Which of the following will have symmetric relation between dependent variable and independent variable?***

**Answer:** B) Correlation

***Q5. Which of the following is the reason for over fitting condition?***

**Answer:** C) Low bias and high variance

***Q6. If output involves label then that model is called as:***

**Answer:** B) Predictive model

***Q7. Lasso and Ridge regression techniques belong to _____?***

**Answer:** D) Regularization

***Q8. To overcome with imbalance dataset which technique can be used?***

**Answer:** D) SMOTE

***Q9. The AUC Receiver Operator Characteristic (AUCROC) curve is an evaluation metric for binary classification problems. It uses _____ to make graph?***

**Answer:** A) TPR and FPR

***Q10. In AUC Receiver Operator Characteristic (AUCROC) curve for the better model area under the curve should be less.***

**Answer:** B) False

***Q11. Pick the feature extraction from below:***

**Answer:** B) Apply PCA to project high dimensional data

***Q12. Which of the following is true about Normal Equation used to compute the coefficient of the Linear Regression?***

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

***Q13. Explain the term regularization?***

**Answer:** Regularization is a technique used to reduce the errors by fitting the function appropriately on the given training set and avoid over-fitting.
The commonly used regularization techniques are:

1. L1 regularization

2. L2 regularization

3. Dropout regularisation

A regression model which uses L1 regularisation technique is called LASSO (Least Absolute Shrinkage and Selection Operator) regression.

A regression model that uses L2 regularisation technique is called Ridge regression.

Dropout is a regularization technique used in neural networks. It prevents complex co-adaptations from other neurons.

***Q14.Which particular algorithms are used for regularization?***

**Answer:** There are mainly three algorithms used in regularisation:

1. L1 regularization

2. L2 regularization

3. Dropout regularisation

Q15.

**Answer:** The error term is the stuff that isn't explained by the model.  suppose you are predicting the weight of adult human males based on their height. Well, height is certainly related to weight - taller people tend to be heavier - but the model won't be perfect because there is a range of weights at each height. The error is the difference between the predicted value and the actual value.