MACHINE LEARNING

1. A) Least Square Error
2. A) Linear regression is sensitive to outliers
3. B) Negative
4. B) Correlation
5. C) Low bias and high variance
6. B) Predictive model
7. D) Regularization
8. C) Kernel
9.
10. A) True
11. B) Apply PCA to project high dimensional data
12. A) We don't have to choose the learning rate. B) It becomes slow when the number of features is very large. C) We need to iterate.

13. Explain the term regularisation?

Answer- Regularization is one of the most important concepts of machine learning. It is a technique to prevent the model from overfitting by adding extra information to it.

13. Explain the term regularization?

Answer Regularization is a technique use in machine learning to reduce errors of overfitting and improve the generalization performance by adding extra and relevant data to the model. Regularization works by adding a penalty or complexity term to the complex model.

14. Which particular algorithms are used for regularization?

Answer Regularization uses many algorithms, we particularly use two type of regression algorithms to prevent overfitting.

1) Ridge regression - it's a regularization technique where a tolerable amount of bias is introduced to obtain better long-term predictions, this method adds the square of the coefficients as a penalty to the loss function. The penalty term acts to reduce the magnitude of the parameter estimates making the model less sensitive to the training data. I

2) Lasso regression - it's a regularization technique short for least absolute shrinkage and selection operator, its used to prevent overfitting in models with a large number of parameters by encouraging the selection of important features and adding a penalty of the absolute value of the coefficients to the loss function. This makes the model less sensitive to the training data.

15. Explain the term error present in linear regression equation?

Answer - The error term captures the unobserved factors in the relationship between the independent and dependent variables. It's the difference between Orignal answer and the Machine answer.