1. The computational complexity of linear regression is

Ans: O(n)

2. Which of the following can be used to fit non-linear data?

Ans: Polynomial Regression

3. Which of the following can be used to optimize the cost function of Linear Regression?

Ans: Gradient Descent

4. Which of the following method does not have closed form solution for its coefficients?

Ans: Lasso

5. Which gradient descent algorithm always gives optimal solution?

Ans: Mini-Batch Gradient Descent

6. Generalization error measures how well a model performs on training data

Ans: True

7. The cost function of linear regression can be given as $J(w0, w1) = 1\ 2m \sum (w0 + w1x\ (i) - y\ (i))\ m\ 2\ i=1$.

Ans: scaling cost function by half makes gradient descent converge faster.

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

Ans: Correlation

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

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

10. Which of the following statement/s are true if we generated data with the help of polynomial features with 5 degrees of freedom which perfectly fits the data?

Ans: A) Linear Regression will have high bias and low variance.

11. Which of the following sentence is false regarding regression?

Ans: C) It discovers causal relationship. D) No inference can be made from regression line.

12. Which Linear Regression training algorithm can we use if we have a training set with millions of features?

Ans: We can use batch gradient descent, stochastic gradient descent, or mini-batch gradient descent.

13. Which algorithms will not suffer or might suffer, if the features in training set have very different scales

Ans: KNN will not suffer or might suffer but Gradient Descent suffers if the features in training set have very different scales.