

MACHINE LEARNING ANSWERS

In Q1 to Q8, only one option is correct, Choose the correct option:

Answer 1: B) $O(n)$

Answer 2: B) Logistic Regression

Answer 3: B) Gradient Descent

Answer 4: C) Lasso

Answer 5: D) All of the above

Answer 6: B) False

Answer 7: D) None of the above

Answer 8: C) Both of them

**Answer 9: A) we don't have to choose the learning rate.
B) It becomes slow when number of the features is very large
C) No need to iterate.**

Answer 10: D) polynomial with degree 5 will have high bias and low variance.

Answer 11: C) It discover casual relationship.

Q12 and Q13 are subjective answer type questions, Answer them briefly

Answer 12: If you have a training set with millions of features you can use Stochastic Gradient Descent or Mini-batch Gradient Descent, and perhaps Batch Gradient Descent if the training set fits in memory. But you cannot use the Normal Equation because the computational complexity grows quickly (more than quadratically) with the number of features.

Answer 13: If the features in your training set have very different scales, the cost function will have the shape of an elongated bowl, so the Gradient Descent algorithms will take a long time to converge. To solve this you should scale the data before training the model. Note that the Normal Equation will work just fine without scaling.