**Answers**

1. D) None of the above

2. D) None of the above

3. C) Random Forest

4. D) None of the above

5. B) Model B.

6. B) R-squared

7. C) Random Forest

8. D) All of the above

9. D) None of the above

10. The adjusted R2 will penalize you for adding independent variables (K in the equation) that do not fit the model. The adjusted R2 will compensate for this by that penalizing you for those extra variables. While values are usually positive, they can be negative as well

11. The key difference between these two is the penalty term. Ridge regression adds “squared magnitude” of coefficient as penalty term to the loss function. Lasso Regression (Least Absolute Shrinkage and Selection Operator) adds “absolute value of magnitude” of coefficient as penalty term to the loss function.

12. A variance inflation factor(VIF) detects multicollinearity in regression analysis . Multicollinearity is when there’s correlation between predictors (i.e. independent variables) in a model; it’s presence can adversely affect your regression results. The VIF estimates how much the variance of a regression coefficient is inflated due to multicollinearity in the model.

13. It is a step of Data preprocessing which is applied to independent variables or features of data. It basically helps to normalise the data within a particular range. Sometimes, it also helps in speeding up the calculations in an algorithm.

14. Coefficient of determination (the R-squared measure of goodness of fit); Lack-of-fit sum of squares; Reduced chi-squared and Regression validation.