1) Among the following identify the one in which dimensionality reduction reduces?

Ans. d) Collinearity

2) Which of the following machine learning algorithm is based upon the idea of bagging?

Ans. b) Random Forest

3) Choose a disadvantage of decision trees among the following?

Ans. c) Decision Tree are prone to overfit

4) What is the term known as on which the machine learning algorithms build a model based on sample data?

Ans. c) Training data

5) Which of the following machine learning techniques helps in detecting the outliers in data?

Ans. c) Anomaly detection

6) Identify the incorrect numerical functions in the various function representation of machine learning?

Ans. a) Support Vector and b) Regression

7) Analysis of ML algorithm needs?

Ans. d) Both a and b

8) Identify the difficulties with the k-nearest neighbour algorithm?

Ans. c) Both a and b

9) The total types of the layer in radial basis function neural networks is _____

Ans. c) 3

10) Which of the following is not a supervised learning?

Ans. d) K Means

11) When implementing linear regression of some dependent variable y on the set of independent variables $\mathbf{x} = (x_1, \cdots, x_r)$, where r is the number of predictors, which of the following statements will be true?

Ans. d) Both and b

12) What indicates that you have a **perfect fit** in linear regression?

Ans. d) The value $R^2 = 1$, which corresponds to SSR = 0

10) In simple linear regression, the value of **what** shows the point where the estimated regression line crosses the y axis?

Ans. b) B0

11) Check out these four linear regression plots: Which one represents an **underfitted** model?

Ans. d) The top-left plot.

12) There are five basic steps when you're implementing linear regression:
- **a.** Check the results of model fitting to know whether the model is satisfactory.
- **b.** Provide data to work with, and eventually do appropriate transformations.
- **c.** Apply the model for predictions.
- **d.** Import the packages and classes that you need.
- **e.** Create a regression model and fit it with existing data.

However, those steps are currently listed in the wrong order. What's the correct order?

Ans. d) d, b, e, a, c

13) Which of the following are optional parameters to Linear Regression in scikit-learn?

Ans. b) fit _ intercept

14) While working with scikit-learn, in which type of regression do you need to transform the array of inputs to include nonlinear terms such as x^2?

Ans. c) Polynomial regression

15) You should choose stats models over scikit-learn when:

Ans. A) You want graphical representations of your data

16) _____ is a fundamental package for scientific computing with Python. It offers comprehensive mathematical functions, random number generators, linear algebra routines, Fourier transforms, and more. It provides a high-level syntax that makes it accessible and productive?

Ans. b) Numpy

17) _____ is a Python data visualization library based on Matplotlib. It provides a high-level interface for drawing attractive and informative statistical graphics that allow you to explore and understand your data. It integrates closely with pandas data structures?

Ans. b) Seaborn