21)
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

22)
What indicates that you have a **perfect fit** in linear regression?
Ans.- d) The value $R^2 = 1$, which corresponds to SSR = 0

23)
In simple linear regression, the value of **what** shows the point where the estimated regression line crosses the y axis?
Ans.- b) B0

24)
Check out these four linear regression plots:
Which one represents an **underfitted** model?
Ans.- d) The top-left plot

25)
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

26)
Which of the following are optional parameters to LinearRegression in scikit-learn?
a) Fit
b) fit_intercept
c) normalize
d) copy_X
e) n_jobs
f) reshape
Ans.- b) fit_intercept d) copy_X f) reshape

27)
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

28)
You should choose statsmodels over scikit-learn when:
Ans.- C)You need more detailed results.

29)
_____ 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

30)
_____ 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

41)
Among the following identify the one in which dimensionality reduction reduces.
Ans.-d) Collinearity

42)
Which of the following machine learning algorithm is based upon the idea of bagging?
Ans.-b)Random Forest

43)
Choose a disadvantage of decision trees among the following.
Ans.-c)Decision Tree are prone to overfit

44)
What is the term known as on which the machine learning algorithms build a model based on sample data?
Ans.-c)Training data

45)
Which of the following machine learning techniques helps in detecting the outliers in data?
Ans.-c) Anamoly detection

46)
Identify the incorrect numerical functions in the various function representation of machine learning.
Ans.-c)Case based

47)
Analysis of ML algorithm needs
d) Both a and b

48)
Identify the difficulties with the k-nearest neighbor algorithm.
Ans.-c) Both a and b

49)
The total types of the layer in radial basis function neural networks is _____
Ans.-c) 3

50)
Which of the following is not a supervised learning
Ans.-a) PCA