- 21 When implementing linear regression of some dependent variable y on the set of independent variables  $\mathbf{x} = (x_1, ..., x_r)$ , where r is the number of predictors, which of the following statements will be true?
  - a)  $\beta_0, \beta_1, ..., \beta_r$  are the **regression coefficients**.
  - b) Linear regression is about determining the **best predicted weights** by using the **method of ordinary least squares**.
  - **C)** E is the random interval
  - d) Both and b

ANS:- B

22)

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

- a) The value  $R^2 < 1$ , which corresponds to SSR = 0
- b) The value  $R^2 = 0$ , which corresponds to SSR = 1
- c) The value  $R^2 > 0$ , which corresponds to SSR = 1
- d) The value  $R^2 = 1$ , which corresponds to SSR = 0

## ANS:) D

23)

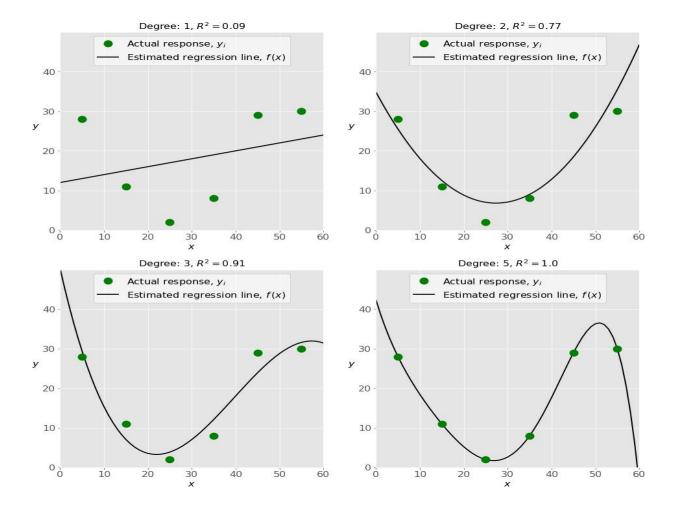
In simple linear regression, the value of **what** shows the point where the estimated regression line crosses the *y* axis?

- a) Y
- b) B0
- c) B1
- d) F

ANS:)

24)

Check out these four linear regression plots:



Which one represents an underfitted model?

- a) The bottom-left plot
- b) The top-right plot
- c) The bottom-right plot
- d) The top-left plot

## ANS:) B

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?

b) e, d, b, a, c c) d, e, c, b, a d) d, b, e, a, c ANS:- D 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**, **C**, **D**,**E** 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  $x^2$ ? a) Multiple linear regression b) Simple linear regression c) Polynomial regression ANS:) C 28) You should choose statsmodels over scikit-learn when: A)You want graphical representations of your data. b) You're working with nonlinear terms. c) You need more detailed results. d) You need to include optional parameters. ANS:) C 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. a) Pandas b) Numpy c) Statsmodel d) Scipy

a) e, c, a, b, d

20.)	in Portland data simultination Discount hand on Manufallis Temporities a bish family
30)	is a Python data visualization library based on Matplotlib. It provides a high-level
interface for di	rawing attractive and informative statistical graphics that allow you to explore and
understand your data. It integrates closely with pandas data structures.	

- a) Bokeh
- b) Seaborn
- c) Matplotlib
- d) Dash

ANS:) B, C