

First and last name .....

### Question 1/25

The purpose of simple linear regression analysis is to:

- A. Measure the degree to which two variables are linearly associated
- B. Obtain the expected value of the independent random variable for a given value of the dependent variable
- ☒ C. Predict one variable from another variable
- D. Replace points on a scatter diagram by a straight-line

### Question 2/25

The normal distribution depends on which of the following?

- ☒ A. Mean and standard deviation
- B. Standard deviation and number of successes
- C. Sample size and probability of success
- D. Mean and probability of success

### Question 3/25

If a constant value is added to every observation of data, then arithmetic mean is obtained by:

- A. Multiplying the constant
- B. Subtracting the constant
- ☒ C. Adding the constant
- D. Dividing the constant

### Question 4/25

The midpoint of the values after they have been ordered from the smallest to the largest or the largest to the smallest is called:

- A. upper quartile
- B. mean
- C. lower quartile
- ☒ D. median

### Question 5/25

If vertical lines are drawn at every point of straight line in frequency polygon then by which way the frequency polygon is transformed

- ☒ A. histogram
- B. Bar chart
- C. heatmap
- D. wiremesh

### Question 6/25

Which one of these statistics is unaffected by outliers?

- ☒ A. interquartile range
- B. range
- C. standard deviation
- D. Mean

### Question 7/25

The elimination of extreme scores at the bottom of the set has the effect of:

- A. Lowering the mean
- ☒ B. No effect
- C. Raising the mean
- D. None of the above

### Question 8/25

When might it be appropriate to conduct a multivariate analysis test?

- A. If the relationship between two variables might be spurious.
- B. If a third variable might be moderating the relationship.
- C. If there could be an intervening variable.
- ☒ D. All of the above.

### Question 9/25

\_\_\_\_\_ is an example of a strategy used to reduce the likelihood of committing statistical error.

- A. Filling in missing data
- B. Including outliers in analysis
- ☒ C. Excluding outliers in analysis
- D. Altering or otherwise changing the data

### Question 10/25

Any measure indicating the centre of a set of data, arranged in an increasing or decreasing order of magnitude, is called a measure of:

- A. symmetry
- B. skewness
- C. dispersion
- ☒ D. central tendency

### Question 11/25

A process by which we estimate the value of dependent variable on the basis of one or more independent variables is called:

- A. residual
- B. slope
- C. correlation
- ☒ D. regression

### Question 12/25

Read the statements given below. Identify the right option from the following for pie chart.

Statement A: To make a pie chart with Matplotlib, we can use the `plt.pie()` function.

Statement B: The `autopct` parameter allows us to display the percentage value using the Python string formatting.

- ☒ A. Both the statements are correct
- B. Statement B is correct
- C. Both the statements are wrong
- D. Statement A is correct

### Question 13/25

Normal Distribution is

- A. None of these
- B. PLatykurtic
- C. Leptokurtic
- ☒ D. Mesokurtic

### Question 14/25

If all the points of a scatter diagram lie on a straight line falling from left upper corner to the right bottom corner, the correlation is called.....

- A. High degree of positive correlation
- B. Perfect positive correlation
- ☒ C. Perfect negative correlation
- D. Zero correlation

### Question 15/25

If the points on the scatter diagram indicate that as one variable increases the other variable tends to decrease the value of  $r$  will be:

- A. zero
- ☒ B. negative
- C. perfect negative
- D. perfect positive

### Question 16/25

The mean of 10 observations is 10. All the observations are increased by 10%. The mean of increased observations will be:

- A. 1.1
- B. 10.1
- C. 10
- ☒ D. 11

### Question 17/25

What does a large standard deviation suggest?

- A. The values are not widely distributed and the median would be an unreliable measure of the central tendency.
- B. Values are not normally distributed.
- ☒ C. Data and values are widely distributed and that the mean may not be a reliable measure of central tendency.
- D. All of the measures of central tendency would be reliable

### Question 18/25

Identify the right type of chart using the following hints.

Hint 1: This chart is often used to visualize a trend in data over intervals of time.

Hint 2: The line in this type of chart is often drawn chronologically.

- A. pie chart
- ☒ B. Line chart
- C. scatter plot
- D. bar chart

### Question 19/25

Determine the 30th percentile of the following eight numbers: 14, 12, 19, 23, 5, 13, 28, 17.

- A. 5
- ☒ B. 13
- C. 19
- D. 23

### Question 20/25

Which of the following would indicate that a dataset is not bell-shaped?

- ☒ A. The mean is much smaller than the median.
- B. The range is equal to 5 standard deviations.
- C. The range is larger than the interquartile range.
- D. There are no outliers.

**Question 21/25**

If the value of any regression coefficient is zero, then two variables are:

- A. qualitative
- B. correlation
- C. dependent
- ☒ D. independent

**Question 22/25**

Which of the following measures of variation is used most frequently because of its statistical properties and interpretive value?

- ☒ A. Standard deviation
- B. Mean
- C. Range
- D. Quartile deviation

**Question 23/25**

Skewness of Normal distribution is \_\_\_\_\_

- ☒ A. 0
- B. negative
- C. positive
- D. undefined

**Question 24/25**

When all the values in a series occur the equal number of times, then it is not possible to calculate the:

- A. Harmonic mean
- B. Arithmetic mean
- ☒ C. Weighted mean
- D. Geometric mean

**Question 25/25**

\_\_\_\_\_ Statistics uses the data to provide descriptions of the population, either through numerical calculations or graphs or tables.

- A. Quantitative
- ☒ B. Descriptive
- C. Inferential
- D. Qualitative