Statistics

Q1 to Q15 have only one correct answer. Choose the correct option to answer your question.

1. What represent a population parameter?

A) SD
B) mean
C) both
D) none

Answer C) both

Explanation: The population mean and standard deviation are two common parameters.
In statistics, Greek symbols usually represent population parameters, such as μ (mu) for the mean and σ (sigma) for the standard deviation.

2. What will be median of following set of scores (18,6,12,10,15)?

A) 14
B) 18
C) 12
D) 10

Answer is C) 12

Explanation :Arranging numbers in numerical order : 6,10,12,15,18
Since we have five numbers, so you divide 5 by 2 to get 2.5, and round up to 3. The number in the third position is the median which is 12

3. What is standard deviation?

A) An approximate indicator of how number vary from the mean
B) A measure of variability
C) The square root of the variance
D) All of the above

Answer D) All of the above.

Explanation : The standard deviation is a number that measures how far data values are from their mean. The standard deviation is the square root of the variance, and it is a useful measure of variability when the distribution is normal or approximately normal.

4. The intervals should be _____ in a grouped frequency distribution

A) Exhaustive
B) Mutually exclusive
C) Both of these
D) None

Answer C) Both of these.

Explanation: The classes must be mutually exclusive (non-overlapping). This means that there is no way

that any of the data could fall into 2 different classes at once.
The classes must be exhaustive. This means that there must be a class for every data value in the data set so that every data value is included in the frequency distribution.

5. What is the goal of descriptive statistics?
A) Monitoring and manipulating a specific data
B) Summarizing and explaining a specific set of data
C) Analyzing and interpreting a set of data
D) All of these

Answer D) All of these
Explanation : Descriptive statistics is a branch of statistics that aims at describing a number of features of data usually involved in a study. The main purpose of descriptive statistics is to provide a brief summary of the samples and the measures done on a particular study.

6. A set of data organized in a participant by variables format is called
A) Data junk
B) Data set
C) Data view
D) Data dodging

Answer B) Data set
Explanation : A set of data organized in a participant(rows) by variables(columns) format is called

7. In multiple regression,_____ independent variables are used
A) 2 or more
B) 2
C) 1
D) 1 or more

Answer A) 2 or more
Explanation : Multiple linear regression is used to estimate the relationship between two or more independent variables and one dependent variable.

8. Which of the following is used when you want to visually examine the relationship between 2 quantitative
variables?
A) Line graph
B) Scatterplot
C) Bar graph
D) Pie graph
Answer B) Scatterplot
Explanation : A scatterplot is the most useful display technique for comparing two quantitative

variables. In a scatterplot, each point represents a paired measurement of two variables for a specific subject, and each subject is represented by one point on the scatterplot.

9. Two or more groups means are compared by using
A) analysis
B) Data analysis
C) Varied Variance analysis
D) Analysis of variance

Answer D) Analysis of variance
Explanation : For a comparison of more than two group means the one-way analysis of variance (ANOVA) is the appropriate method instead of the t test. The ANOVA method assesses the relative size of variance among group means (between group variance) compared to the average variance within groups (within group variance)

10. _____is a raw score which has been transformed into standard deviation units?
A) Z-score
B) t-score
C) e-score
D) SDU score

Answer A) Z-score
Explanation : Z-Scores are raw scores expressed in standard deviation units, relative to the mean score. Positive Z- scores indicate a raw score that is above the mean, negative Z-scores indicate a raw score that is below the mean, and a Z-score of zero indicates a raw score that is equal to the mean.

11. _____is the value calculated when you want the arithmetic average?
A) Median
B) mode
C) mean
D) All

Answer C) mean.
Explanation : The mean is the average value of the data set and is computed by summing up all the observations and dividing by the total number of observations. Thus, the mean is the value when we want to calculate the arithmetic average

12. Find the mean of these set of number (4,6,7,9,2000000)?
A) 4
B) 7
C) 7.5
D) 400005.2

Answer D) 400005.2
Explanation : Arithmetic mean by direct method is the sum of all observations in a series divided by the total number of observations.
Mean = 4+6+7+9+2000000 = 2000026/5= 400005.2

13. _____ is a measure of central tendency that takes into account the magnitude of scores?
A) Range
B) Mode
C) Median
D) Mean

Answer D) Mean
Explanation :Measures of central tendency describe the distribution of scores around a midpoint.
The mean is the most commonly used measure of central tendency

14. _____ focuses on describing or explaining data whereas _____involves going beyond immediate data and making inferences
A) Descriptive and inferences
B) Mutually exclusive and mutually exhaustive properties
C) Positive skew and negative skew
D) Central tendency

Answer A) Descriptive and inferences

15. What is the formula for range?
A) H+L
B) L-H
C) LXH
D) H-L

Answer D) H-L
Explanation: Formula for range is (max-min)