Quiz on Statistics (Data Sc.)

1. The dispersion, regression, correlation etc. of the data is done under which part of statistics :
    (a) Summarization of data
    (b) Interpretation of data
    (c) Analysis of data
    (d) Application of data

2. Which of the following statements are true?
I. The mean of a population is denoted by x.
II. Sample size is never bigger than population size.
III. The population mean is a statistic.

(a)   I only

(b)   II and III

(c)   All of the

(d)   none of these

3. The sum of the percent frequencies for all classes will always equal:

(a)   one

(b)   the number of classes

(c)   100

(d)   number of items in the study

4. The steps that would not be included in a hypothesis testing :

(a) State the null and alternative hypothesis

(b) Obtaining a probability value

(c) Eliminate the outliers

(d) Set the significance level before research study

5. Which is not the measure of variablity?

(a) Variance

(b) Standard Deviation

(c) Range

(d) Median

6. Which of these isn't a descriptive measure in statistics?

(a) Variance

(b) Range

(c) Hypothesis testing

(d) Mode

7.In computing descriptive statistics from grouped data :

(a) data values are treated as if they occur at the midpoint of a class

(b) the grouped data computations are used only when a population is being analyzed

(c) the grouped data computations are used only when a population is being analyzed

(d) None of the above

8. Which of the following is not a measure of central location?
a. mean
b. median
c. variance
d. mode

9. Which of the following is a measure of dispersion?
a. percentiles
b. quartiles
c. interquartile range
d. all of the above are measures of dispersion

10. The interquartile range is used as a measure of variability to overcome what difficulty of the range?
a. the sum of the range variances is zero
b. the range is difficult to compute
c. the range is influenced too much by extreme values
d. the range is negative

11.The measure of dispersion that is influenced most by extreme values is
a. the range
b. the standard deviation
c. the variance
d. the interquartile range

12. The measure of location which is the most likely to be influenced by extreme values in the data set is the
a. range
b. median
c. mode
d. Mean

13. Which of the measures of central tendency must be reported when the data is significantly skewed?

(a) Mean

(b)Standard deviation

(c)Median

(d)Mode

14.The sum of deviations of the individual data elements from their mean is
a. always greater than zero
b. always less than zero
c. sometimes greater than and sometimes less than zero, depending on the data elements
d. always equal to zero

15. The process of condensation and elimination of unnecessary details from a data are some of the objectives of:

   (a) Data abstraction

   (b) Data Classification

   (c) Data Modification

   (d) Data Analysis

16. Number of observations falling in a particular class interval is known as:

(a) Class limit

(b) Frequency

(c) Sample size

(d) Range

17. Number of class intervals for 100 observations according to Sturge's rule is:

(a) 9

(b) 7.644

(c) 8

(d) 7

18. The relationship between the size of class intervals and number of class intervals is :

(a) Directly proportional

(b) Inversely proportional

(c) Do not relate

(d) Equal

19. The size of class interval in a discrete distribution is given as (where N is the total number of   observations):

(a) highest value / (1+3.322 logN)

(b) (highest value – lowest value) / (1+3.322 logN)

(c) (highest value – lowest value) / N

(d) a and b both can be used

20.   The extent of the departure of numerical values from normal distribution :

(a) Dispersion

(b) Skewness

(c) Central tendency

(d) None of the above

21. Which of these isn't a measure of average of positions :

(a) Median

(b) hypergeometric mean

(c) Decile

(d) Mode

22. The sum of squares of deviations of the given set of observations is _____ when taken from arithmetic mean :

(a) Maximum

(b) Zero

(c) not predictable

(d) Minimum

23. The mean computed by removing the outliers is called :

(a) Expected mean

(b) Trimmed mean

(c) Weighted mean

(d) Arithmetic mean

24. The most suitable average when it is desired to give greater weight to smaller observations and less weight to the larger ones :

(a) Geometric mean

(b) Arithmetic mean

(c) Harmonic Mean

(d) Hypergeometric mean

The wheat production (in Kg) of 20 acres is given as:

1120, 1240, 1320, 1040, 1080, 1200, 1440, 1360, 1680, 1730, 1785, 1342, 1960, 1880, 1755, 1720, 1600, 1470, 1750, and 1885.

25. The coefficient of quartile deviation of the above data is:

(a) 0.161

(b) 0.164

(c) 0.168

(d) None of the above

26. The quartile deviation of the data is:

(a) 492.25

(b) 492.75

(c) 246.875

(d) 246.812

27. The _____ is that value of the variable up to which lie exactly k% of the total number of observations.

(a) Decile

(b) Quartile

(c) Percentile

(d) None of the above

28. Calculate the third decile of the following data:

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[50-60]	8
[60-60]	10
[70-60]	16
[80-60]	14
[90-60]	10
[100-60]	5
[110-60]	2

(a) 60
(b) 70.94
(c) 75
(d) 71.56