Correction of the Statistics Exam

Question one: State briefly the difference between the following pairs   (06pts)

1. Measures of central tendency are values that describe a set of data by identifying the central position within that set of data, while measures of variability provide indices of how dispersed the scores are in a dataset.

2. Qualitative data deals characteristics and descriptors that be separated into different categories that are distinguished by some non- numerical characteristics, while quantitatitative data consist of numbers representing counts and measurements

3. Descriptive statistics consists of methods for organizing, displaying and descibing data by using tables, graphs whereas **Inferential statistics** consists of methods that use sample results to help make decisions or prediction about a population.

4. Chi-square test is used for nomimal data to determine whether there is an association between two vairables while ANOVA test can be used to compare more than two groups.

Question two: Provide short succinct   answers to the following questions (02pts)

1. The statistical test shows whether to accept or reject the null hypothesis.

2. The choice of statistical test is based on the type of study, hypothesis (es) and sample

Question three: Given the following data set from a random sample: (06pts)

   2-5-10-7- 16-1-5

Calculate the mean/ median/ mode /variance and standard deviation

The mean:5,57 (apply the formula seen in the lecture)

The median: 5

The mode: 5

The variance: 22,53

The standard deviation:4,75

Question four: The scores obtained in a test from a sample are as follows: **(06 pts)**

5 students got from 5 to 9

12 got from 10 to 13

3 got from 14 to 17

1 got 18

Calculate the relative, cumulative and percent frequencies and place them in a frequency distribution table. **(6pts)**

Scores	Frequency	Relative frequency	Percentage	Cumulative frequency
5 to 9	5	0.24	24%	5
10 to 13	12	0.57	57%	17
14 to 17	3	0.14	14%	20
18	1	0.05	05%	21