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ID. 14589

Subject Basic statistics

Q1.

Ans.

1) Latin language
2) Quantitative data
3) Ordinal study deals with order
4) Clustering
5) Bins
6) Band score
7) Interval
8) True
9) False
10) True

Q2) a. Differentiate b/w Descriptive and inferential statistics with examples.

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Q2) a. Differentiate b/w Descriptive and inferential statistics with examples.

Ans. Descriptive statistics.

Descriptive statistics are used to describe or summarize data in ways that are meaningful and useful. For example, it would not be useful to know that all of the participants in our example wore blue shoes. However, it would be useful to know how spread out their anxiety ratings were. Descriptive statistics is at the heart of all quantitative analysis.

For example, the shooting percentage in basketball is a descriptive statistic that summarizes the performance of a player or a team. This number is the number of shots made divided by the number of shots taken. For example, a player who shoots 33% is making approximately one shot in every three. The percentage summarizes or describes multiple discrete events. Consider also the grade point average . This single number describes the general performance of a student across the range of their course experiences.

Inferential statistics.

Statistical inference is the process of using data

student across the range of their course experiences.

Inferential statistics.

Statistical inference is the process of using data analysis to deduce properties of an underlying distribution of probability. Inferential statistical analysis infers properties of a population, for example by testing hypotheses and deriving...

For example

With inferential statistics, you take data from samples and make generalizations about a population. For example, you might stand in a mall and ask a sample of 100 people if they like shopping at Sears. ... This is where you can use sample data to answer research questions.

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Q2b) Differentiate between countable and un countable data with examples.

Ans.

Countable data.

The first is discrete data, which is a count of whole events, objects or persons. For example, the number of people with a certain illness is a discrete quantity, ie, countable

For example, you can count the change in your pocket. You can count the money in your bank account. You could also count the amount of money in everyone's bank accounts.

Uncountable data.

represents measurements and therefore their values can't be counted but they can be measured . An example would be the height of a person, which you can describe by using intervals on the real number line.

3a) Elaborate the word frequency distribution

intervals on the real number line.

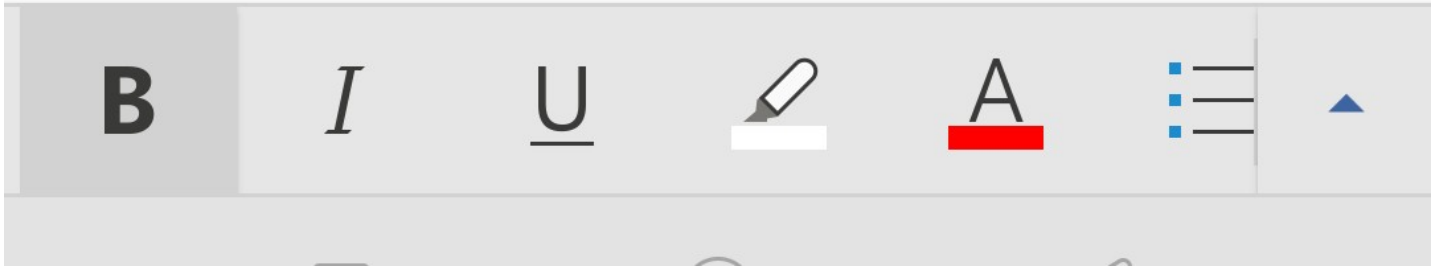
3a) Elaborate the word frequency distribution precisely.

Ans. Frequency distribution.

In statistics, a frequency distribution is a list, table or graph that displays the frequency of various outcomes in a sample. Each entry in the table contains the frequency or count of the occurrences of values within a particular group or interval.

For example.

The frequency of an observation tells you the number of times the observation occurs in the data. For example, in the following list of numbers, the frequency of the number 9 is 5 (because it occurs 5 times): ... Frequency distribution tables give you a snapshot of the data to allow you to find patterns.



Q3b.

93, 89, 75, 97, 75, 47, [illegible] 73, 40, 100, 42,
39, 75, 13, 39, 89, 78, 32, 72, 51, 21, 92,
45, 29, 58, 16, 31, 6, 82, 76, 10, 10, 32, 2, 25,
98, 94, 93, 91, 68, 20, 19, 61, 37, 98, 72,
61, 72, 19, 81, 78.

we find that the biggest number is 100 and the smallest number is 2 so that the range is 100-2=98

$$\text{Class interval} = \frac{\text{Max} - \text{Min}}{\text{No. of Classes}}$$

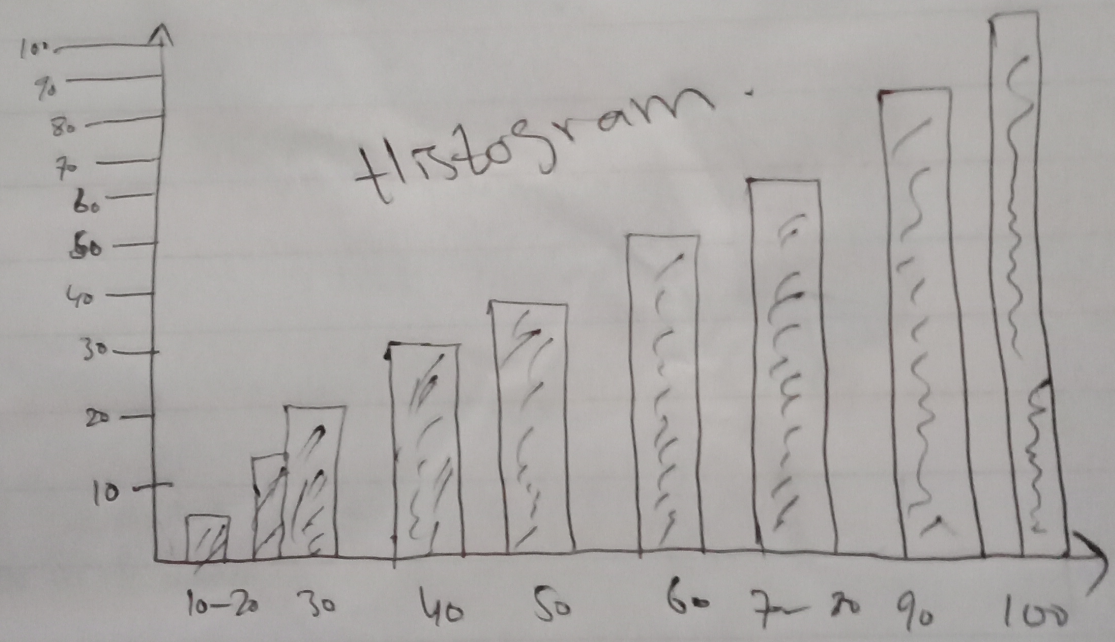
$$= \frac{100-2}{7}$$

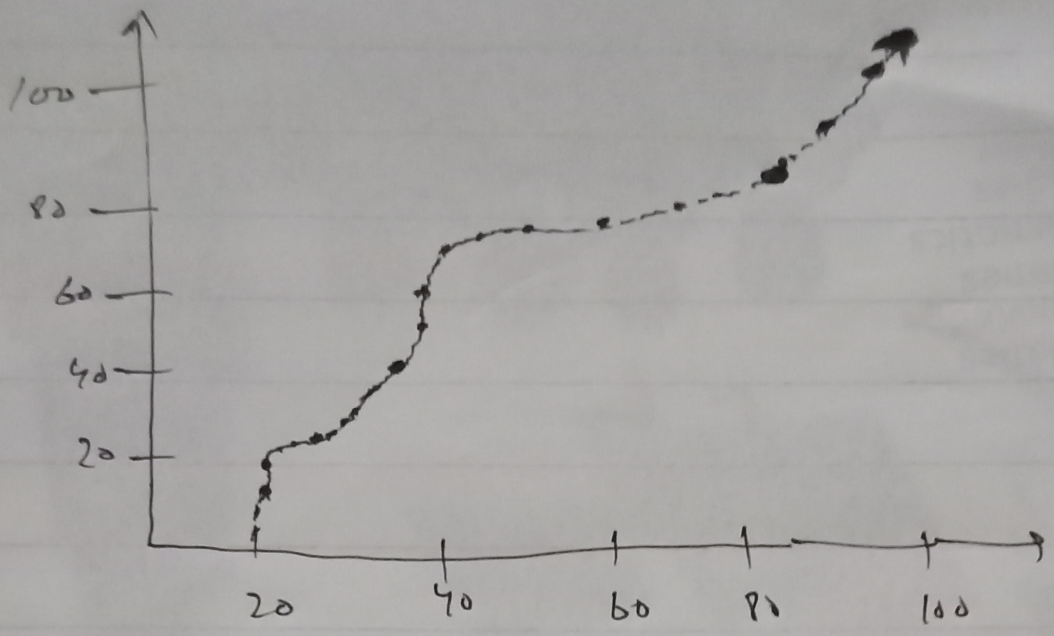
$$= \frac{98}{7} = 14$$

Class boundary = lower limit of 2nd class − upper limit of 1st class.

$$0.5 = \frac{17-16}{2} = \frac{1}{2} = \text{class boundary.}$$

No of class	Frequency	class boundary	midpoint
(1) 2-16	6	1.5 – 16.5	9
17-31	7	16.5 – 31.5	24
32-46	8	31.5 – 46.5	39
47-61	5	46.5 – 61.5	54
62-76	9	61.5 – 76.5	69
77-91	7	76.5 – 91.5	84
92-106	8	91.5 – 106.5	99





ogive curve