PRACTICE PROBLEM

(MEASURE OF CENTRAL TENDENCY & DISPERSION)

Q1 Over a period of 60 days the percentage relative humidity in a vegetable storage building was measured. Mean daily values were recorded as shown below:

60	63	64	71	67	73	79	80	83	81
86	90	96	98	98	99	89	80	77	78
71	79	74	84	85	82	90	78	79	79
78	80	82	83	86	81	80	76	66	74
81	86	84	72	79	72	84	79	76	79
74	66	84	78	91	81	64	76	78	82

a) Make a stem-and-leaf display with at least five stems for these data. Show the leaves sorted in order of increasing magnitude on each stem.

b) Make a frequency table for the data, with a maximum bound of 100.5% relative humidity (since no relative humidity can be more than 100%). Use Sturges' rule to approximate the number of classes.

c) Draw a frequency histogram for these data.

d) Draw a relative cumulative frequency diagram.

e) Find the median, lower quartile, and upper quartile.

f) Find the arithmetic mean of these data.

g) Find the mode of these data from the grouped frequency distribution.

h) Draw a box plot for these data.

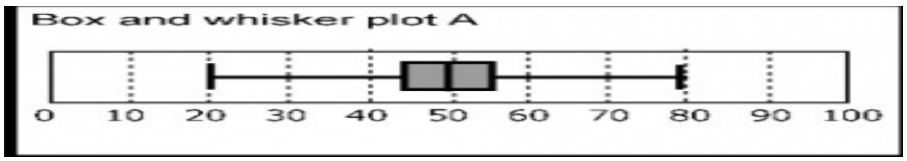
I) Calculate inter quartile range?

J) Calculate variance & coeffient of variance?

k) Calculate skewness & kurtosis & write comments on the shape of the distribution?

Q2 (a) With the help of box plot calculate five number summary?

(b) Calculate inter quartile range and quartile deviation?



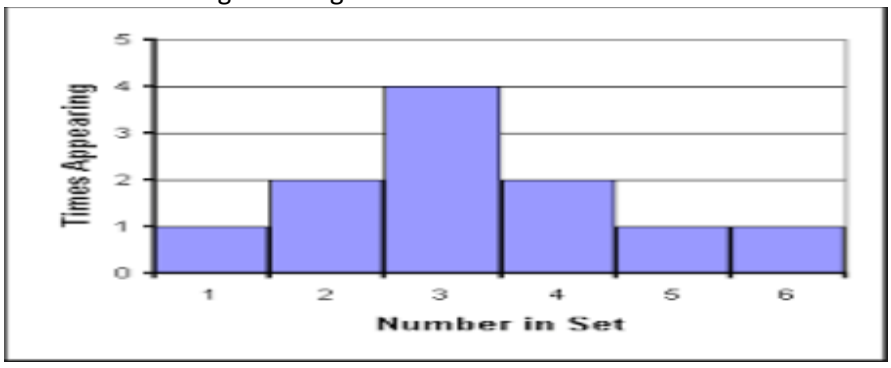
Q3 (a) Draw frequency distribution table with the help of graph?

(b) Calculate skewness & kurtosis with the help of moment about mean?

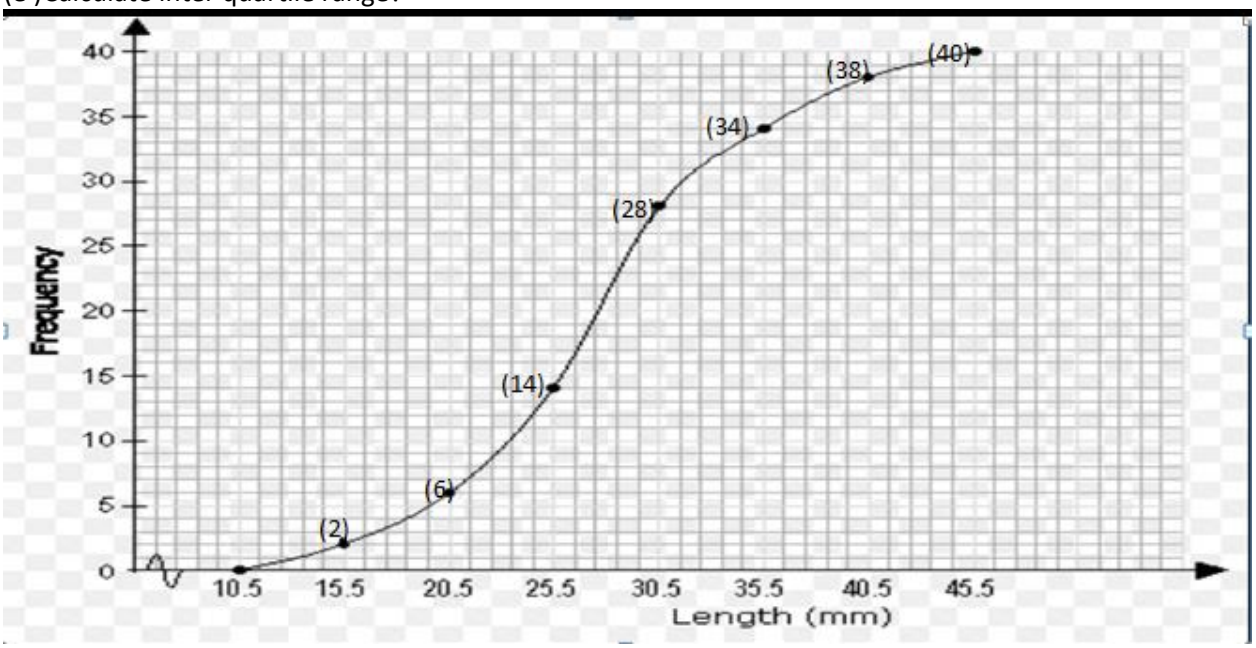
(c) Write comments on the shape of distribution?

(d) Calculate coeffient of variation?

(e) Calculate 99% range of the given data?



Q4 (a) Draw frequency distribution table with the help of graph?
(b) Calculate Q1 Q2 & Q3 & write comments with the help of Quartiles?
(C) Verify result with the help of Graph?
(d) Calculate mode?
(e)Calculate inter quartile range?



Q5 A survey was taken on Maple Avenue. In each of 20 homes, people were asked how many cars were registered to their households. The results were recorded as follows:

1, 2, 1, 0, 3, 4, 0, 1, 1, 1, 2, 2, 3, 2, 3, 2, 1, 4, 0, 0

a) Construct frequency distribution table?
b) Calculate cumulative frequency distribution?
c) Calculate relative frequency distribution table?
d) Draw O-Give curve & frequency polygon?

A. Create a stem-and-leaf plot that represents the following data. Then find the mean, median, mode, and the interquartile range. Include a key.

1.

14	17	23	13	12	14	17	25	27

B. Use the following plots to find the mean, median, mode, first quartile, third quartile, and interquartile range. Show your work.

2. The stem-and-leaf plot below represents the SAT scores of a group of students.

Stem	Leaves
14	20 40 40 60 80 80
13	00 00 20 40 40
12	20 40 40 80
11	20 40
10	40 80 80
9	20

Key: 11 \| 20 = 1120