

QUESTION FOUR (13 MARKS)

- a) Find the mean, median and mode of the following data. Also obtain the three quartiles.

[13mks]

Students marks	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99
No. of students	12	6	16	7	10	15	20	6	4	1	7	3	4	8	6	5

QUESTION FIVE (13 MARKS)

- a) The following table shows the lengths of 40 leaves recorded to the nearest mm.

138,164,150,132,144,123,149,157,146,158,140,147,136,148,152,144,168,126,138,126,
163,119,154,165,136,173,142,147,135,153,140,135,161,145,135,142,150,156,145,128

Construct

- i) Frequency distribution [4mks]
 ii) Histogram [2mks]
 iii) Frequency polygon [2mks]
 iv) Ogive [2mks]
 v) How many leaves have lengths less than 152mm [1mk]
 vi) What percent of the leaves have lengths higher than 140 but not more than 154 mm. [2mks]

**QUESTION SIX (13 MARKS)**

- a) The monthly wages paid to the workers in two firms A and B belonging to the same industry gives the following results

	<u>FIRM A</u>	<u>FIRM B</u>
Number of workers	500	1000
Average monthly wages (Mean)	250	200
Variance	100	144

- i) Calculate combined mean for firm A and firm B. [2mks]
 ii) Calculate combined variance for firm A and firm B. [3mks]

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- b) In a study to investigate growth of plants, the following data was recorded.

Height(cm)	0-10	11-20	21-30	31-40	41-50
No. of plants	8	15	20	4	3

Calculate the harmonic mean.

[3mks]

- c) List and explain five characteristics of a good average?

[5mks]

QUESTION SEVEN (13 MARKS)

- a) Define the following terms; qualitative and quantitative data, give examples of each? [4mks]
- b) List two merits and demerits of median as a good measure of central tendency? [4mks]
- c) Give and explain five an area in which statistic is applicable. [5mks]