

24.7	8.6	16.4
28.7	11.0	11.0
16.6	22.1	18.7
13.9	14.1	27.6
25.8	19.2	9.5
15.4	9.6	8.9
13.5	31.5	14.8
15.0	13.9	17.8
17.0	12.0	15.5
23.9	27.6	20.7
20.0	18.6	12.6
17.9	11.8	11.5
8.7	9.7	8.7
7.0	18.4	17.2
12.6	11.0	10.8
27.1	21.2	17.9
16.4	12.5	15.4
14.1	28.7	16.7
13.2	21.6	12.7
20.9	11.4	
9.0	23.2	
15.2	19.4	
20.4	19.0	
14.1	18.7	
25.4	17.8	

**UNIVERSITY EXAMINATION  
RESIT/SUPPLEMENTARY / SPECIAL EXAMINATIONS  
EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF ARTS**

**GEOG 146: INTRODUCTION TO QUANTITATIVE METHODS IN GEOGRAPHY**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: FRIDAY 05/11/2021**

**8.30 A.M - 10.30 A.M.**

**INSTRUCTIONS**

- **Answer Question ONE and any other Two Questions**

1. The data below shows total seasonal rainfall in millimetres at a certain station for a 70 years period (1905-1975)

a) From the above data construct a grouped frequency distribution table (use approximately 10 classes) (10 marks)

b) draw:

- i. a histogram (6 marks)
- ii. a frequency and percentage polygon (6 marks)
- iii. a cumulative percentage curve/Ogive (8 marks)

2. The table shows the number of cattle reared by pastoralists in Wajir District, Kenya

<b>No. of Cattle (Classes)</b>	<b>No of Pastoralist (Frequency)</b>
7-10	6
11-14	10
15-18	12
19-22	14
23-26	13
27-30	16
31-34	13
35-38	10
39-42	15
43-46	11

use the above table to:

- a. Calculate the mean and the median (5 marks)
  - b. Identify the modal class, hence or otherwise calculate the actual mode (5 marks)
  - c. Calculate the interquartile range (5 marks)
  - d. Calculate the standard deviation (5 marks)
3. Given the values: 269, 270, 295, 272, 302, 343, 364, 292, 244, 256 and 266
- a. Calculate the range and mean (4 marks)
  - b. Calculate the standard deviation and hence the coefficient of variation (5 marks)
  - c. Calculate the momental skewness (4 marks)
  - d. Calculate the coefficient of kurtosis (4 marks)
  - e. Calculate the mean deviation (3 marks)
4. A group of 1000 students who sat for KACE geography P251/4 in 1984 had a mean mark of 50 and a standard deviation of 4. Assuming a normal distribution for these geography scores for this examination, find:
- a. The number of students who scored a mark between 46% and 54% (10 marks)
  - b. The number of students who scored a mark below 54% (5 marks)
  - c. If the pass mark was 40%, how many students failed? (5 marks)
5. A study by transport a geographer in the city estate revealed that 42.9% of the households possess one car. From a random sample of 6 households, determine the probability of 4 households possessing a car. (20 marks)
- .....