

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF PHYSICAL SCIENCES

DEPARTMENT OF GEOGRAPHY

SECOND SEMESTER 2015/2016 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: GRY222

COURSE TITLE: ELEMENTARY STATISTICS FOR GEOGRAPHERS (2 UNITS)

INSTRUCTION: Answer **QUESTION ONE (1) and any other two** Questions. Credits will be given for proper usage of relevant illustrations and diagrams.

TIME ALLOWED: 2.30Minutes

1. A. Two hundred students sat for an examination in a summer school. The table below gives the distribution of grades in percentage by the students.

Grade Interval (%)	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100
Number of Students	1	4	12	47	64	42	18	8	2	2

- i. Estimate the:
- Mean
 - Median
 - Mode
- ii. Which of the three measures will you recommend as the acceptable measure of location in this case and why?
- B. The following table shows how workers in a certain organization travel from their homes to the office.

Means	Number of workers
Bus	180
Car	30
Bicycle	90
Motorcycle	60
Foot	90

Illustrate the above information by means of a pie chart.

2. The distribution below shows the average market prices of yam flour in (naira per measure) obtained from fifteen communities

85 95 50 31 98

63 53 24 35 65
 70 92 99 68 20

Calculate:

- a. The range
 - b. The quartile deviation
 - c. The 5th decile and the 50th percentile of the distribution
3. The table below is showing yearly unit prices (in naira) of three commodities in a community for five consecutive years.

Commodities	YEARS					
	1	2	3	4	5	TOTAL
1	330	310	270	P	Q	1580
2	R	S	330	350	350	1610
3	T	410	U	490	520	V
	1100	W	1060	X	1220	Y

Hints:

- i. The price of commodity 1 in year 5 is 30 naira more than its price in year 4.
 - ii. The price of commodity 2 in year 1 and year 2 are the same.
- Complete the table with the values of P, Q, R, S, T, U, V, W, X, Y, showing all your workings clearly in each case.
4. a. Explain any four use of statistics to geographers
 - b. Itemize and explain various types of data classification
 - c. List the features of a grouped frequency table and use a well defined distribution to explain each of the features listed above.
5. The following marks were obtained by forty students in GRY222 class test:
- 29 28 24 20 17 23 23 26 26 25
 19 19 22 11 30 16 23 10 25 28
 30 22 19 15 26 24 23 15 19 26
 27 24 17 18 10 5 22 23 19 23
- i. Construct a frequency table of the marks using class interval 1-5, 6-10 e.t.c.
 - ii. Use the table to calculate:
 - a. The mean deviation
 - b. The standard deviation