

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF SCIENCE AND SCIENCE EDUCATION

DEPARTMENT OF GEOGRAPHY

FIRST SEMESTER 2010/2011 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: GRY 313

COURSE TITLE: QUANTITATIVE STATISTICS FOR GEOGRAPHERS

INSTRUCTIONS: Answer any four (4) questions of your choice. Credit will be given for the use of specific examples and appropriate diagrams.

TIME ALLOWED: 2 ½ Hours

1. Use the map provided, and compute the following:

- a. Attempt ordering the stream in the basin
- b. Compute bi-vocational ratio
- c. Determine the number of streams in the second order.

2. The bottle of coka cola are chosen at random from a population and their content are found to be in centiliters: 34, 37, 36, 36, 35, 34, 33, 37, 38, 32. The advertised content of the company is 35cl.

- a. Test whether the sample mean is equivalent to the population.
- b. Test for the differences between the means of the two samples.

3. Examine the relevance of inferential spatial statistics in demographic study.

4. After a field survey, the information below was obtained by a surveyor from an observed spatial distribution patterns with an area of 30km

0.63	0.10	0.40	0.60
0.74	0.80	0.60	0.30
0.74	0.60	0.70	0.70
0.50	0.70	0.30	0.40

Using the nearest neighbor analysis technique,

- a. calculate R_n using the above data

b. using the result obtained in (i) represent with a diagram the spatial distribution pattern

c. Explain the interpretation of the spatial pattern.

6. A die is tossed 120 times with following results

No turned up	1	2	3	4	5	6	Total
frequency	30	25	18	10	22	15	120

Use the above information to test the hypothesis that the die is unbiased.

Alpha level = 0.05 (df) 5 = 11.07