FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF NATURAL AND APPLIED SCIENCES
DEPARTMENT OF GEOGRAPHY

FIRST SEMESTER 2012/2013 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: GRY 313 (2units)
COURSE TITLE: Advanced Statistics for Geographers
INSTRUCTION: Answer question one and any other Two
TIME ALLOWED: 2hrs

1. Using the table below, attempt an analysis of the association between the mode of journey to work and income level using the chi- square

Transport	<5000	5000-6999	7000-8999	9000-above
Train	11	14	22	28
Car	10	26	30	32
Bus	16	20	11	17
Others	20	11	12	13

Alpha level=0.05 (df) 9=16.92

2. From the map provided, compute the following:

   a. Attempt ordering the stream in the basin
   b. Compute Bifurcation ratio.
   c. Determine the streams in the second order

3. Enumerate and explain the procedure for testing for significance level

4. Write short notes on the following:

   a. Parametric and non parametric test

   b. Population and Sampling.

   c. Concave and Convex Slopes.

5. A surveyor came up with the following measurement after a field survey of an observed spatial distribution patterns for an area of $36cm^2$

3.41 3.41   0.60   0.61

10.23 0.23   0.30   0.70

4.34   1.72   3.52   1.82

2.12   3.14   2.71   0.62

Using the nearest neighbor analysis technique

    a. Calculated Rn using the above data

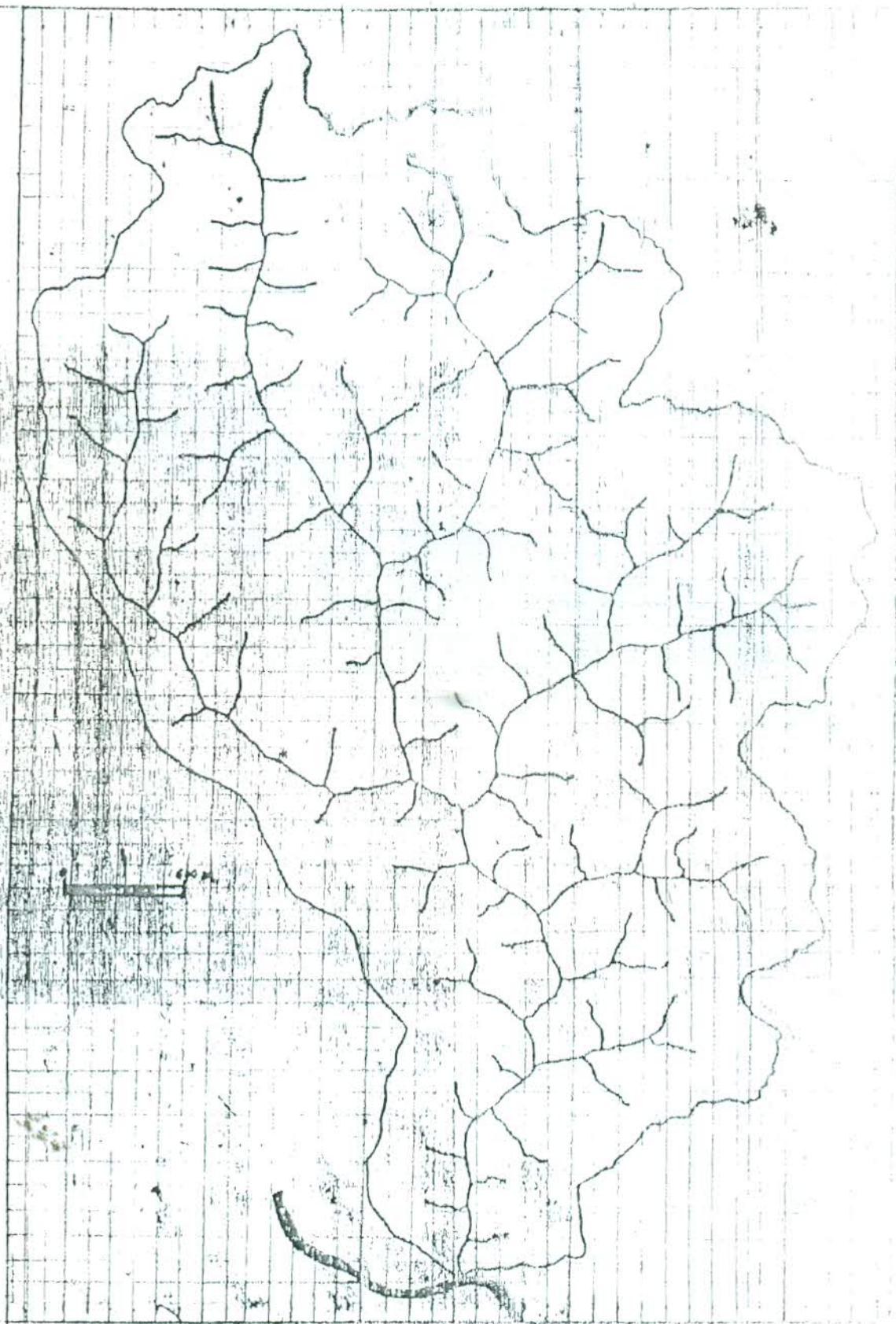   b. Explain the interpretation of the distribution pattern

FIG. 6: Kentucky Basin U.S.A. Source: Physical Geography 4 edition by A.N. Strahler
Published by Wiley & Sons 1975, Page 468.