KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2014/2015

DIGITAL SCHOOL OF VIRTUAL AND OPEN LEARNING

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS

AGE 200: QUALITATIVE AND QUANTITATIVE METHODS

DATE: TUESDAY, 28TH APRIL 2015 **TIME: 2.00 PM. – 4.00 P.M.**

INSTRUCTIONS:

Answer question one and two other questions

Use illustration where appropriate

1.a) State the usefulness of statistics in geographical studies. (5 marks)

b) Why is the mean the most important measure of central tendency? (5 marks)

c) Distinguish between qualitative and quantitative methods of conducting research. (5 marks)

d) Explain the difference between a parameter and a variable. (5 marks)

e) Explain briefly the necessary steps in testing of a hypothesis. (5 marks)

f) Describe four sampling techniques and show their relevance in geographic studies. (5 marks)

2.a) Describe sources and methods of collecting and organizing geographic data.(10 marks)

b) Using an example distinguish between stratified and cluster sampling procedures. (10 marks)

3.a) Determine the mean, median and the coefficient of variation using the age of male population in appendix 1. (10 marks)

b) State and illustrate Chebychev theorem using 1%, 5% and 10% level of significance. (10 marks)

4.a) Determine the mean, mode and standard deviation of the female population in Appendix 1. (10 marks)

APPENDIX 1: POPULATION PROJECTION FOR BWATHONARO (2015

Age Bracket	Males	Females	Births	Deaths	Fecundity rate	Probability of survival
Below 1	2886	2749		6588		
1-4	2320	2257		3269		
5-9	2315	2291		2566		
10-14	1919	1926		1535		
15-19	968	1174		991	0.120	0.911
20-24	1123	1195	6588	378	0.135	0.906
25-29	1024	1036	3269	317	0.267	0.885
30-34	827	1018	2266	173	0.186	0.878
35-39	1144	1130	1535	141	0.135	0.845
40-44	1022	983	991	84	0.093	0.821
45-49	792	770	378	14	0.051	0.800
50-54	376	238	317			
55-59	105	86	173			

Source: Luwesi, C.N. (2013). A Climate Proof Response-Capability for Green Water Saving and Agriculture Resilience in Semi-Arid Watersheds of the Eastern Region, Kenya (PhD Thesis). Nairobi: Department of Geography, School of Pure and Applied Sciences, Kenyatta University.

b) Using appropriate related formula, distinguish between correlation and causation. (10 marks)

5. The data below shows sample size of randomly, selected respondents from five districts and their level of preference in the use of tea and coffee.

Product	Nairobi	Thika	Mombasa	Nakuru	Kisumu
Tea	100	80	60	50	60
Coffee	80	40	30	60	40

i) Compute the expected frequencies for use of each product. (6 marks)

ii) State the suitable null and research hypothesis for this data. (6 marks)

iii) Calculate a chi-square test at 0.05 level of significance. (5 marks)

iv) How useful is the chi-square test as a statistical test? (3 marks)