



# THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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**MAIN EXAMINATION**

**MAY – JULY 2018 TRIMESTER**

**FACULTY OF ARTS AND SOCIAL SCIENCES**

**DEPARTMENT OF HUMANITIES**

**PART TIME PROGRAMME**

**GEO 211: QUANTITATIVE METHODS IN GEOGRAPHY**

**Date: JULY 2018**

**Duration: 2 Hours**

**INSTRUCTIONS: Answer Question ONE and any other TWO Questions**

- Q1. a) Explain **four** importances of quantitative methods in Geography. **(4 marks)**
- b) Examine the three measurers of central tendency used in quantitative approach of the study. **(6 Marks)**
- c) Explain **four** characteristics of a good hypothesis **(4 marks)**
- d) Use the grouped data below to answer the questions indicated  
Calculate the following
- i) Mean **(4 marks)**
  - ii) Standard deviation **(4 marks)**
  - iii) Determine the skewness and kurtosis **(10 marks)**

<b>CLASSES</b>			
10 – 14			
15 – 19			
20 – 24			
25 – 29			
30 – 34			
35 – 39			
40 – 44			

- Q2. Discuss **Four** probability sampling methods used in geography **( 20 marks)**

- Q3. a) Calculate the  $X^2$  of the following data set obtained by students during the field exposition. **(8 marks)**

Rock type	Observed Frequency	Expected Frequency
Marl	8	6
Upper sand stone	10	6
Upper marl	6	6
Clay	3	6
Culm Measure	3	6

- b) Give the interpretation of your findings. **(2 marks)**
- c) Explain briefly descriptive statistics **(2marks)**
- d) Explain four levels of measurement used in statistics. **(8 marks)**
- Q4. Discuss in the detail the three types of probability and identify their uses in Statistics **(20 marks)**
- Q5. a) Calculate the student t-Test as used in statistics. Using the following data **(14 Marks)**

- b) The total rainfall for 1966 is given for 10 'northern' towns and 15 'southern' towns. 'Northern' is defined as being north of a line from the Wirral to the Wash. Whether it is reasonable to expect these rainfall totals to be normally distributed in the population(s) from which the samples are taken is open to argument. For the purpose of the exam, assume that it is reasonable.

<b>X</b>	<b>Y</b>
<b>Northern towns</b>	<b>Southern towns</b>
11.1	9.76
8.64	8.09
10.11	8.02
13.07	11.50
7.71	7.50
9.68	11.47
10.19	6.52
10.13	12.83
7.74	6.58
12.29	8.91
	9.50
	8.54
	7.34
	9.37
	6.30

Discuss the criticisms of quantitative approach in Geography. **(6 marks)**

**\*END\***