CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

ODEL

FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY DEVELOPMENT

SOCI 403: SOCIAL STATISTICS II

STREAMS: **TIME: 2 HOURS**

DAY/DATE: TUESDAY 30/03/2021   **2.30 P.M – 4.30 P.M**

INSTRUCTIONS:

Answer question one and any other two questions.

Do not write on the question paper

QUESTION ONE

(a) Define the following terms as used in statistics;

    (i) Representative sample   [2 marks]

    (ii) Variable   [2 marks]

    (iii) Parameter   [2 marks]

(b) Describe three uses of correlation coefficient.   [9 marks]

(c) Elaborate two types of hypothesis.   [6 marks]

(d) Determine the relationship between X and Y using product moment correlation coefficient.
[9 marks]

X	65	58	56	61	67	52
Y	68	70	60	55	71	90

QUESTION TWO

(a) Explain the steps involved in hypothesis testing. [10 marks]

(b) Test the hypothesis that there is no difference between the means of the experimental and control groups. [10 marks]

Experimental	66	75	56	46	84	78
Control	34	55	49	29	68	48

The critical value is given as 2.99

QUESTION THREE

(a) Compute the chi square for the following data. [12 marks]

	Residents	Foreigners
Male	55	45
Female	70	30

(b) Explain any four assumptions of regression analysis. [8 marks]

QUESTION FOUR

(a) Determine the regression line equation for the data in the table below. [10 marks]

X	11	13	21	26	14	18
Y	20	23	34	38	25	30

(b) Explain any five factors that influence correlation coefficient. [10 marks]