

CHUKA



UNIVERSITY

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**FOURTH YEAR EXAMINATION FOR THE AWARD OF
BACHELOR OF CRIMINOLOGY AND SECURITY STUDIES**

SOCI 475 / 403: SOCIAL STATISTICS II

STREAMS:

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 31/3/2021

8.30 AM – 10.30 AM

INSTRUCTIONS:

- Answer **Question one (Compulsory)** and any other Two.
- Do not write on the question paper.

QUESTION ONE.

(a) Discuss the four scales of measurement giving an example in each case. [12 Marks]

(b) Describe any two characteristics of t distribution. [4 Marks]

(c) Determine the rank order correlation coefficient for data in the table below and interpret the answer. [10 Marks]

Population	94	75	50	33	19
Employment	25	99	43	67	81

(d) Describe any five qualities of a good hypothesis. [5 Marks]

QUESTION TWO

(a) Determine the value of y when x is 36 for the data below. [40 Marks]

X	7	9	12	13	18	20
y	15	24	32	44	63	85

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

QUESTION THREE

(a) Test the hypothesis that there is no association between type of institution and passing an examination given the critical value as 5.99. [10 Marks]

(b) Describe the steps involved in hypothesis testing. [10 Marks]

QUESTION FOUR

(a) Work out the t-test statistic for data in the table below. [10 Marks]

Control Group (X)	60	80	50	90	70	30
Experimental group (Y)	50	60	20	70	50	40

(b) Describe the following terms as used in statistics. [10 Marks]

- i. Population
- ii. Variable
- iii. Parameter
- iv. Data
- v. Statistic

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