

CHUKA

UNIVERSITY



UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE (COMMUNITY DEVELOPMENT)

SOCI 454: SOCIAL STATISTICS II

STREAMS: BSc (CDEV) (ODEL)

TIME: 2 HOURS

DAY/DATE: TUESDAY 05/10/2021

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS

- **Answer question ONE and any other two questions**
- **Do not write anything on the question paper**

1. a) Highlight the limitations of statistics in social sciences (12 marks)
 b) Elaborate on the four (4) levels of measurement as applied in statistics. (16 marks)

2. a) State the qualities of a good hypothesis. (6 marks)
 b) Explain the steps in hypothesis testing. (14 marks)

3. a) The following table shows the marks scored in test 1 and test 2 by 6 students in Mathematics.
 i. Calculate the Pearson product moment correlation coefficient. (10 marks)

Test 1	5	6	5	3	2	3
Test 2	4	6	5	2	3	4

- ii. Interpret your results (2 marks)
- b) Explain the assumptions of regression analysis. (8 marks)

4. a) A coin was tossed 10 times and results obtained were heads 7 and tails 3. Compute the Chi square and test the hypothesis that there is no statistically significant difference between what is expected and what is observed given the critical value as 3.84. (8 marks)

b) The control and experimental groups in an experiment generated the following results.

Control group	10	5	6	7	10	6	7	8	6	5
Experimental group	7	3	5	7	8	4	5	6	3	2

Test the hypothesis that there is no significant difference between the controlled groups and the experimental group give that the critical value at 0.05 level of significance is 2.10 from the t-statistic tables. (12 marks)

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