

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF MASTER OF AGRICULTURAL
EDUCATION**

EDCI 841: STATISTICAL METHODS IN EDUCATION

STREAMS: MASTER IN AGED (PART TIME) LIBI

TIME: 3 HOURS

DAY/DATE: TUESDAY 04/12/2018

8.30 A.M. – 11.30 A.M.

INSTRUCTIONS:

- **Answer question ONE and any other TWO questions.**
- **Do not write on the question paper.**

Q1. (a) Explain the following terms used in statistics

- (i) Simple linear regression
- (ii) Interval scale
- (iii) Mean
- (iv) Variance (8 marks)

(b) (i) Discuss three applications of correlation coefficient. (6 marks)

(ii) Describe the procedure used in testing hypothesis. (6 marks)

Q2. (a) A teacher wishes to test the hypothesis that the mean performance of her students in statistics has changed from 68%. She selects 96 students administers a statistical test and then obtain an average of 59%, with a variance hypothesis at 0.05 error in a two failed test given that critical of 18. Test statistic is 2.20

(10 marks)

(b) The number of 1st years male students at Chuka University faculty of education is approximately 969 students. What sample will you take at

- (i) 99% confidence limit
- (ii) 98% confidence limit
- (iii) 90% confidence limit with a maximum error of 0.05. (10 marks)

Q3. (a) Calculate the

- (i) Range
- (ii) Variance
- (iii) Standard deviation

For the following distribution

55, 52, 68, 78, 60, 52, 70, 56, 100, 74, 102, 100, 110, 200. (10 marks)

(b) Discuss FIVE factors that influence correlation coefficient (r). (10 marks)

Q4. (a) The scores of maths and physics were recorded as follows.

Maths	6	4	18	10	4	5	12	2	5
Physics	10	4	20	2	4	4	8	4	1

Calculate Spearman Rank Correlation Coefficient r_s (8 marks)

(b) (i) Construct a grouped frequency distribution with class interval of 0-9, 10-19 etc. (3 marks)

45	100	100	100	20
100	80	90	86	105
30	45	96	110	92
80	70	48	90	140
40	76	100	50	138
50	40	118	122	18
75	40	45	144	74

(i) Calculate from b (i) above

- (i) Mean (3 marks)
- (ii) Median (3 marks)
- (iii) Mode (3 marks)