

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF EDUCATION (ARTS)

EPSC 123: STATISTICAL METHODS IN EDUCATION

STREAMS: B.ED

TIME: 2 HOURS

DAY/DATE: TUESDAY 07/08/2018

11.30 A.M. – 1.30 P.M.

INSTRUCTIONS:

- **Do not write anything on the question paper.**
- **Answer question one and any other two.**

QUESTION ONE

- (a) Describe any five characteristics of t-test statistic. (10 marks)
- (b) Explain the meaning of the following terms in relation to statistics.
- (i) Population (2 marks)
 - (ii) Variable (3 marks)
 - (iii) Data (2 marks)
 - (iv) Parameter (3 marks)
- (c) Describe the procedure of testing a hypothesis. (10 marks)

QUESTION TWO

- (a) Use data in the table below to compute the inter-quartile range. (10 marks)

Class	11-20	21-30	31-40	41-50	51-60
Frequency	5	17	19	06	23

- (b) Determine the product moment correlation coefficient for the data below

Music	80	60	75	50	70
Maths	30	50	45	70	40

QUESTION THREE

- (a) Compute the t-test value using the data in the table below. (10 marks)

X	14	13	17	15	18	17
Y	18	12	20	19	22	19

- (b) Use data in the table below to answer questions that follow

Class	16-25	26-35	36-45	46-55	56-65
Frequency	10	30	40	20	20

- (a) Mean (3 marks)
- (b) Variance (5 marks)
- (c) Standard deviation (2 marks)

QUESTIONS FOUR

- (a) A coin and a die are tossed together. Find the probability of getting

- (a) A head and five
- (b) A head and at least 2
- (c) A tail and at most 5
- (d) A head and less than 4. (10 marks)

- (b) Represent the following data on a frequency polygon. (10 marks)

Scores	15-19	20-24	25-29	30-34
Number of students	5	9	6	8