

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

CHUKA & EMBU

EXAMINATION FOR THE AWARD OF POST-GRADUATE DIPLOMA IN EDUCATION

PGDE 742: STATISTICAL METHODS IN EDUCATION

STREAMS: PGDE LIBII

TIME: 3 HOURS

DAY/DATE: THURSDAY 10/04/2025

8.30 A.M. – 11.30 A.M.

INSTRUCTIONS:

- ANSWER QUESTION ONE AND ANY OTHER TWO OTHER QUESTIONS
- DO NOT WRITE ON THE QUESTION PAPER

- 1 a). Explain the significance of statistical methods in education (10 marks)
- b). Discuss the measurement scales as used in educational statistics (10 marks)
- c). Highlight the qualities of a good hypothesis (10 marks)
2. Below are the masses, to the nearest kilogram, of the forty-one cubes of concrete. (15 marks)

45	65	66	67	72	74	79	69	57	58
65	58	65	67	66	70	69	49	50	52
51	70	79	80	84	49	52	55	63	64
85	90	87	69	81	82	68	69	68	60
80									

Using the data above and classes 44-49, 50-54 etc;

- a). draw a frequency distribution table
- b). calculate the mean, median and modal class.
- c). compute the upper quartile, lower quartile and semi interquartile range
- d). work out the 4th decile and 70th percentile

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- 3 a). Based on the data given in the table below, find the correlation between pretest and posttest examination using rank order correlation and interpret the results. (11 marks)

Pretest	50	60	50	30	20	30
Posttest	40	60	50	20	30	40

- b). Highlight the assumptions of regression analysis (4 marks)
- 4 a). Discuss the limitations of statistics in solving educational issues (6 marks)
- b). Explain three (3) graphical representation methods of data (9 marks)
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