

JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MASTERS SCHOOL BASED PROGRAMME

DEC -2013 --- APRIL 2014 SEMESTER

DEGREE OF MASTER OF EDUCATION IN EDUCATIONAL ADMINISTRATION

CODE: EMA 840

COURSE: RESEARCH METHODS II

**INSTRUCTIONS: THIS PAPER CONSISTS OF THREE SECTIONS. ATTEMPT
THREE QUESTIONS ONLY. SECTION A IS COMPULSORY.
ATTEMPT ANY ONE QUESTION FROM SECTIONS B AND C**

TIME : 3HRS

SECTION A (COMPULSORY)

1.a) Select a problem you would wish to research on in educational administration and

write the following:

- i) Statement of the problem
- ii) Four objectives of your study
- iii) Hypotheses and / or research questions
- iv) Four subsections of the literature review
- v) Research design
- vi) Data analysis

(20 mks)

2(a) According to a director of education in a given County, the mathematics mean performance of the county was 50.64 in 2012. A chairman of the heads association in the said county believes that the mean is different today but is not sure whether it has increased or decreased due to proper staffing. The chairman obtains a simple random sample of 12 schools and finds that their mathematics mean performance is 65.014 and a standard deviation of 18.49. Conduct a hypothesis testing using the p-value approach at $\alpha = 0.05$ level of significance to substantiate the chairman's argument (10 mks).

2(b) A random sample data was summarized by a researcher as shown below:

Category of School attended	Students' academic performance	
	Had < B+	Had B+
Private school	31	469
Public school	185	1315

- a) i) Why would a researcher find it necessary to use chi-square test in doing analysis (2mk)
 ii) State two mutually exclusive factors that the researcher would analyze (2mk).
- b) Compute the chi-square value using the formula $\chi^2_{obs} = \frac{(f_o - f_e)^2}{f_e}$ at 0.05 level of significance and comment (6mks)

SECTION B

- 3 a) Discuss the salient features of the executive summary of a thesis (10mks).
 b) Differentiate between bibliography and referencing. Comment on the significance of the appendices section of a thesis/proposal. (10 marks)

SECTION C

4 .A researcher obtained the following summarized raw data from field work:

40	71	25	50	38	63
46	51	54	47	59	40
51	39	55	56	52	40
41	56	55	61	52	14
33	50	49	41	47	23
65	58	44	40	28	30
48	40	59	42	14	66
43	68	73	58	50	20
30	37	44	66	52	37
					38

- a) Using the data, prepare a grouped frequency distribution table
- b) From the table, compute
 - i) The sample mean (3mks)
 - ii) The mode (2mks)
 - iii) The median (3mks)
 - iv) The variance (2mks)
 - v) The standard deviation (3mks)
- c) What is the usefulness of the standard deviation indices in data analysis (2mks)

5.a) With respect to the multiple correlation and regression,

- b) i) When does a researcher use a multiple correlation and regression analysis (1mks)
- ii) State a typical multiple regression equation and explain the meaning of the indices therein (3mks).
- iii) What is the meaning of R and R² (2mks)

c).The following data was prepared by a researcher from field work

No. of tuition administered (X_1)	50	30	60	75	40	90	15	19	64	80
Positive performance index (Y)	55	20	59	78	55	70	20	15	60	84

- i) Apart from Pearson's r, name any other two methods you can employ to analyze your data (2mks)
- ii) Determine the correlation between X_1 and Y using Pearson's r. (12mks).