



JARAMOGI ODINGA OGINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF EDUCATION
UNIVERSITY EXAMINATION FOR THE DEGREE OF MASTER OF EDUCATION IN
EDUCATIONAL ADMINISTRATION/PSYCHOLOGY
1ST YEAR, 2ND SEMESTER, 2016/2017 ACADEMIC YEAR
KISUMU CAMPUS, SCHOOL BASED

COURSE CODE: EDU 802/EMA 840

COURSE TITLE: RESEARCH METHODS II

DATE APRIL, 2017

STREAM: MED

TIME: 2HOURS

EXAM SESSION:

Instructions:

1 Answer question ONE (COMPULSORY) and ANY other TWO questions.

2 Candidates are advised not to write on the question paper.

3 Candidate must hand in their answer booklets to the invigilator while in the examination room.

QUESTION ONE (COMPULSORY)

a) a) Select one of the problems you would wish to research on in your area of specialty and briefly discuss the following:

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

(10mks)

b) A researcher was interested in studying television channel viewing in some locality and age set of viewers. The results were as shown in the table below:

	TV Channel Viewed			
Age set	KBC	KTN	NTV	Total
Young	120	112	129	361
Old	67	210	99	376
Total	187	322	228	737

Using Chi-square (χ^2) and $\alpha=0.05$, test whether there is a statistical relationship between TV viewed and Age set of viewers. (10mks)

QUESTION TWO

a) A group of ten candidates scored the following marks in English and Kiswahili tests:

English(X)	12	18	16	11	7	10	13	17	12	9
Kiswahili (Y)	6	5	7	7	4	9	8	13	10	11

Calculate and comment on Karl-pearson's Product moment correlation coefficient (10mks)

b)The marks of 1000 candidates in an examination were normally distributed with a mean mark of 45% and standard deviation of 10%.

i) Given that the pass mark in the test was 60%, estimate the number of candidates who passed the examination (5mks)

ii) Calculate the probability that a student picked at random from the group scored between 35% and 65% (5mks)

QUESTION THREE

The K.C.S.E Mathematics examination score for a given county assessment test in 2013 was 51% with a standard deviation of 14. A county director of education believes that students who were in public boarding primary schools score better in the test. The director obtains a simple random sample of 40 high school students who were in public boarding primary schools and finds that their mean score is 54%, conduct a traditional method of hypothesis testing to determine if the director's beliefs are supported by data at 5% level of significance. (20mks).

QUESTION FOUR

The following information relates to the number of tuition administered to 10 candidates and corresponding positive academic performance index in mathematics for a period of four years.

No. of candidates	No of tuition (X)	Positive performance index (Y)
1	41	44
2	65	60
3	50	39
4	57	51
5	96	80
6	94	68
7	110	84
8	30	34
9	79	55
10	65	48

Find a regression equation that fits the data and interpret the results (20 mks)

QUESTION FIVE

The distribution of scores for a certain master of education unit for a group of 50 candidates were as follows:

Marks	No of Candidates
50-54	2
55-59	5
60-64	7
65-69	8
70-74	11
75-79	9
80-84	4
85-89	2
90-94	2

- a) Construct a histogram to represent the data (3mks)
- b) Estimate the:
- i) Mean mark (4mks)
 - ii) Median mark (2mks)
 - iii) Standard deviation (3mks)
 - iv) Modal mark (2mks)
- c) By calculating the coefficient of Skewness or otherwise, describe the nature of distribution of scores in the test. (6mks)

