



**JARAMOGI OGINGA ODINGA UNIVERSITY OF AGRICULTURE AND  
TECHNOLOGY**

**SCHOOL OF HUMANITIES AND SOCIAL SCIENCES**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION  
(ARTS)**

**3<sup>rd</sup> YEAR 1<sup>st</sup> SEMESTER 2017/2018 ACADEMIC YEAR**

**MAIN CAMPUS (SCHOOL BASED)**

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**COURSE CODE: NGE 301**

**COURSE TITLE: QUANTITATIVE METHODS**

**VENUE:**

**DATE:**

**EXAM SESSION:**

**TIME: 2 HOURS**

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**INSTRUCTIONS**

- 1. This paper consists of Five (5) questions.**
- 2. Answer question 1 (COMPULSORY) and any other Two questions.**
- 3. Write all answers in the answer booklet provided.**

1. a) The data below show the weight of patients in (Kgs) in a health centre in Kisumu County. Use it to answer the questions that follow.

<b>Weight (Kgs)</b>	1-8	9-16	17-24	25-32	33-40
<b>Frequency</b>	15	12	7	5	1

(i) Construct a frequency polygon of the above data. (4 marks)

(ii) Compute Mean Deviation and Standard Deviation. (6 marks)

B) Write explanatory notes on the following:

(i) Skewness (5 marks)

(ii) Type I and Type II Errors (5 marks)

(iii) Normal Distribution (5 marks)

(iv) Correlation Analysis (5 marks)

2. Critique the use of samples in geographic studies. (20 marks)

3. In a biostatistics study, preliminary results showed the following observed frequencies of feather and eye colours of a certain bird species. Test whether there is any association between feather and eye colour of the bird species. (20 marks)

<b>Feather Colour/Eye Colour</b>	<b>Red</b>	<b>Brown</b>	<b>Black</b>
<b>Blue</b>	143	57	18
<b>Grey/Green</b>	71	90	53
<b>Brown</b>	11	35	22

4. Discuss the relevance of hypothesis testing in geography. (20 marks)

5. Discuss the significance of quantitative techniques in geography. (20 marks)