KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ENVIRONMENTAL STUDIES (COMMUNITY DEVELOPMENT)

ECD 301: INTRODUCTION TO APPLIED STATISTICS

DATE: Tuesday, 23rd November 2010 **TIME:** 2.00 p.m – 4.00 p.m

INSTRUCTIONS:

Answer questions ONE and any other TWO Questions.

1. Despite the importance of "statistics" in organizing data for purpose of "statistics" in organizing data for purposes of description and inference, it is still open to abuse. Discuss this statement citing practical cases. [30 marks]
2. Using arbitrary examples and supporting data, discuss various levels of measurements used in data collection, summary and analysis. [20 marks]
3. a) What do you understand by univariate distributions [5 marks]
   b) Discuss various statistics commonly used for univariate descriptions. [15 marks]
4. A group of pupils sat a trial examination in May and the official examination in June. The mark obtained by the pupils in both examinations were as follows:

Trial marks	11	15	24	37	37	45	46	46	55	56	60	72
Officials marks	9	8	28	41	43	46	46	46	45	55	50	73

   a) Rank the pupils in both examinations and calculate spearman's rank correlation coefficient (r). [15 marks]
   b) Comment on the (r) value in (a) above. [4 marks]

5. The Survival rates (in percent) of two different plants in the farm fields of ten farmers were as follows: -

Plant "A"	Plant " B"
30	25
15	15
20	18
10	12
25	20
15	12
40	28
50	30
50	25
5	**15**
Total 260	**200**

a) Provide the regression equation for the survival rate of plant "A" on plant "B" [15 marks]

b) Based on your regression equation in (a) above, estimate the Survival rate of plant " A" when the survival of plant " B" is 35 %. [5 marks]