



Uva Wellassa University
Faculty of Animal Science and Export Agriculture
End Semester Examination- February/March, 2011
Year III Semester I
Applied Statistics for Agriculture AAS 301-3



Instructions:

- Part B: Essay Questions
- Total Two (02) Pages
- Answer All Questions
- Total Three (03) Questions
- Time: One (1) hour and Thirty (30) minutes
- Total Marks 50%

1. In order to compare the effectiveness of two source of nitrogen, namely, ammonium chloride and urea, on grain yield of paddy, an experiment was conducted. The results on the grain yield of paddy (kg/plot) under the two treatments are given below.

Ammonium chloride: 13.4, 10.9, 11.2, 11.8, 14.0, 15.3, 14.2, 12.6, 17.0, 16.2, 16.5, 15.7
 Urea : 12.0, 11.7, 10.7, 11.2, 14.8, 14.4, 13.9, 13.7, 16.9, 16.0, 15.6, 16.0

Calculated results are given below.

Ammonium	Urea
$n_1=12$	$n_2=12$
$\sum x_1=168.8$	$\sum x_2=166.9$
$\sum x_1^2=2423.75$	$\sum x_2^2=2369.09$

- i. Assess which source of nitrogen is better for paddy.(Assuming equal Variances) ($\alpha = 0.05$)
- ii. A random sample of 500 paddy plants were taken from a large experimental field and 65 plants were found to be affected by yellowing disease. Find a 99% confidence interval for the disease rate.

[18 marks]

