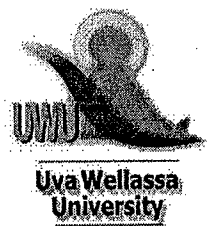


**Uva Wellassa University
B.Sc. in Export Agriculture**



**End Semester Examination February / March 2011
Year III Semester I**

Basic Genetics (EAG 311- 2) Repeat

Instructions

Answer all questions
No. of questions : Essay Questions (2)
No. of pages : One (01)
Total marks allocated : 50%
Time : One hour (1hr)

Index No:

Question 1

- I. Consider a population in which initial frequency of allele A is $p = 0.7$ and the frequency of allele a is $q = 0.3$ and meets the requirements of Hardy Weinberg relationship. After one generation, what will be the (a) allele frequencies and (b) genotype frequencies?
- II. (a) Define heritability
(b) What are the two kinds of heritability estimates?
(c) Discuss the use of heritability estimates in animal and plant breeding

Question 2

Answer the followings,

- I. What is a quantitative trait?
- II. How does a quantitative trait behave in a population?
- III. How does Natural Selection apply on quantitative traits?