10-2ND-EAG 213-2.

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Uva Wellassa University
B.Sc. in Export Agriculture

End Semester Examination June/July 2010
Year II Semester II

Basic Genetics EAG 213-2

Instructions

Answer **All Three** questions.

No. of questions	: Three (03)
No. of pages	: Two (02)
Total marks allocated	: 60%
Time	: One hour (1hr)

Part III - Essay

Question 1

1. Define "Population".

(5 Marks)

2. What is an "Ideal Population"?

(5 Marks)

3. In a crop variety, a student observed that fruit has continuous variation in its size. With further analysis, he concluded that fruit size is a quantitative trait. Now, the student wants to analyze how the natural selection applies on this trait.
If you are asked to explain application of natural selection on fruit size, how do you describe different ways of natural selection that can be applied on a quantitative trait like fruit size?

(10 Marks)

Question 2

1. What is "Central Dogma" in Molecular Biology?

(5 Marks)

2. DNA is the "genetic blueprint" that determines the genotypic make up of each organism as DNA is the ideal genetic material. Explain that how DNA considers as the ideal genetic material.

(5 Marks)

3. Describe "Semi Conservative Replication" of a cell in cell division.

(10 Marks)

Question 3

Write short notes on;

1 Processing of mRNA transcript (5 Marks)

2 Degeneracy of genetic code in protein translation (5 Marks)

3 Functions of RNA molecules in a cell (5 Marks)

4 Multigene families (5 Marks)

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