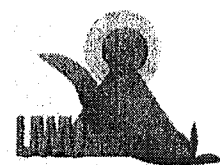


Uva Wellassa University
Faculty of Animal Science and Export Agriculture
BSc in Tea Technology and Value Addition
BSc in Export Agriculture

End Semester Examination – August/September 2014
Year II Semester I



Uva Wellassa
University

Plant Physiology and Crop Production EAG 251-2

Instructions

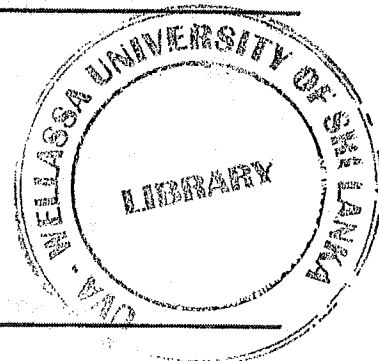
Answer **Three (03)** questions including question 01.

No. of questions : Four (04)

No. of pages : Two (02)

Time : 01 hour

Total marks allocated : 50 %



Part III – Essay

Question 01

Write short descriptions on two (02) of the following:

- a. Factors affecting on transpiration
- b. Physiological basis of crop yield improvement
- c. Drought avoidance adaptations of plants

(20 marks)

Question 02

- i. Discuss major differences between C3 and C4 photosynthetic pathways.
- ii. Briefly discuss stages of cellular respiration.

(15 marks)

Question 03

Using an appropriate diagram, briefly explain how assimilates are transported from a source to a sink.

(15 marks)

Question 04

Consider the given composition of seeds of two different cultivars. If the yield of cultivar A is 8 mt/ ha,

- a. What is the yield of cultivar B?
- b. What is the reason for yield difference in two cultivars?

(Production values of CHO, Proteins, Lipids and Ash are 0.86, 0.45, 0.36 and 0.1, respectively).

Assumption: Cultivars are equal in all aspects.

Biochemical Compound	Cultivar A (Traditional variety)	Cultivar B (Improved variety)
CHO	50 %	30 %
Protein	30 %	40 %
Lipid	16 %	26 %
Ash	4 %	4 %

(15 marks)