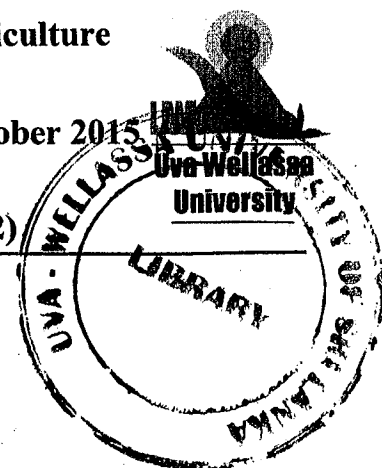


**Uva Wellassa University**  
**Faculty of Animal Science and Export Agriculture**  
**BSc in Export Agriculture**

**End Semester Examination - September/October 2015**  
**Year III Semester I**

**Postharvest Technology (EAG 341-2)**



**Instructions**

Answer four (04) questions only

No. of questions : Five (05)

No. of pages : Two (02)

Total marks allocated : 100 %

Time : Two hours (02 hrs)

**ESSAY**

**Question 01**

- a. Define the terms "field heat" and "vital heat" of a fresh commodity. (05 marks)
- b. Briefly explain package icing / top icing as a pre-cooling method. (08 marks)
- c. Explain the benefits of pre-cooling. (12 marks)

**Question 02**

- a. "Grapes must be harvested when optimum quality of the fruit is developed". Explain the statement. (10 marks)
- b. Describe the necessary steps of supplying banana for the domestic supermarket chain. (15 marks)

**Question 03**

A trader has used wooden boxes to transport tomatoes from a collecting centre at Mathale using an open truck. However, considerably high postharvest loss was observed after unloading the tomatoes at Manin market in Colombo.

a. What type of damages can be observed in tomatoes transported using wooden boxes?

(15 marks)

b. What are the suggestions to reduce those damages in order to minimize the postharvest loss?

(10 marks)

**Question 04**

A pineapple exporter has exported Sri Lankan pineapple to Middle-East countries by sea-freight under low temperature conditions. At the destination pineapples were displayed in a grocery for few days. However, consumers made a complain saying that quality of the ripe pineapples is very poor due to water soaked and discoloured flesh.

a. What is the disorder responsible for the poor quality of the pineapples?

(05 marks)

b. Scientifically explain the reasons for the above disorder.

(20 marks)

**Question 05**

A researcher has done a study on induced-ripening of "Karuthacolomban" mangoes. Selected fruits for the experiment were of same stage of maturity. Ripening process of the mangoes was induced by ethylene and one half of the fruits were kept at 22 °C while the other half was kept at 30 °C.

a. Explain the expected findings regarding the time taken for ripening and the flavour of the ripened mangoes.

(15 marks)

b. "Use of Calcium carbide to induce the ripening process of fruits is not recommended". Discuss the statement.

(10 marks)