00109

THE OPEN UNIVERSITY OF SRI LANKA

B.Sc./B.Ed. DEGREE PROGRAMME

BOTANY – LEVEL 05

FINAL EXAMINATION – 2014/2015

BOU3108/BOE5108/BTU3113/BTE5113 – POSTHARVEST TECHNOLOGY OF FRESH PRODUCE

DURATION : TWO (02) HOURS

Date : 04.11.2015 **Time : 9.30 a.m. – 11.30 a.m.**

No. of Questions – 06

No. of Pages – 02

ANSWER ANY FOUR (04) OF THE FOLLOWING QUESTIONS.

01. (a) List the main objectives of applying post-harvest technology to living commodities.

(b) Post-harvest losses of fresh produce could be discussed under two main categories. Name and describe these two categories.

(c) Explain the relationship between the temperature and the shelf life of fresh produce.

(d) Define the following terms

i. Pre-cooling

ii. Antioxidants

iii. Cool chain management.

02. (a) Briefly describe the importance of fruits and vegetables as food.

(b) "It is generally considered healthier to consume foods with low glycemic index" Briefly explain.

(c) What is a "competitive protein"? Describe the main functions of proteins.

(d) Write concisely on the beneficial effects and anti-nutritional role of phytochemicals.

03. Discuss the following:

(a) Ethylene has both beneficial and harmful effects on harvested fresh produce.

(b) Climatic factors have a great impact on the quality of fruits and vegetables.

04. (a) What is meant by "shelf life"?

(b) List the factors which affect the shelf life of fresh produce.

(c) Give a brief account of the various ways by which the fresh produce is stored until sale or consumption.

05. (a) Briefly describe the handling and stowage practices that can be used to minimize damage and loss of fresh produce when transported in road vehicles.

(b) List the advantages of air freight of fresh produce.

(c) What are reefers?

List the constraints of controlled atmosphere reefer trade.

06. Write short notes on the following:

(a) Chemical characteristics that are used to determine the maturity of fresh produce.

(b) Sanitation practices used in the field to control diseases caused by bacteria and fungi.