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## THE OPEN UNIVERSITY OF SRI LANKA

B.Sc./B.Ed.DEGREE PROGRAMME

**BOTANY - LEVEL 05** 

FINAL EXAMINATION 2016/2017

BOU3108/BOE5108 – POSTHARVESTTECHNOLOGY OF FRESH PRODUCE

**DURATION - TWO (02) HOURS.** 

Date: 18th January 2018

Time: 09.30a.m. 11.30 u.m

No. of Questions - 06

No. of Pages - 02

## ANSWER ANY FOUR (04) OF THE FOLLOWING QUESTIONS

- 01. (a) Briefly describe the importance of fruits and vegetables.
  - (b) Explain why postharvest technology is needed in maintaining quality of fresh produce.
  - (c) List the storage tips and buying tips for fresh produce that should be followed in order to reduce the risk of food-borne diseases.
  - (d) Briefly describe the causes of physical damage which lead to postharvest losses of fresh produce.
- 02. Discuss the following:
  - (a) Use of recombinant DNA technology to enhance postharvest longevity of fresh produce.
  - (b) Methods that can be adopted to minimize the deleterious effects of ethylene on harvested commodities.
- 03. (a) Define the term" Cull utilization"
  - (b) Describe shelf life extension of fruits and vegetables by canning, drying and freezing.
    - (c) Briefly describe blanching as a method of food preservation.

- 04. (a) What is the main purpose of packaging of fresh produce?
  - (b) Briefly describe the different types of plastic material used for packaging.
  - (c) Describe how vacuum packaging and shrink packaging techniques are performed.
  - (d) What are the advantages of using microperforated films in packaging?
- 05. (a) Briefly describe the packing house operations done to harvested commodities until it is ready for marketing.
  - (b) Explain "wax coating" which is a specialized treatment applied to certain fresh produce.

List the advantages of waxing of fresh produce.

(c) What is curing?

What kind of crops are cured?

List the benefits of curing.

- 06. Write short notes on the following.
  - (a) Beneficial effects and antinutritional role of phytochemicals.
  - (b) Compositional changes associated with fruit ripening.

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