



**THE OPEN UNIVERSITY OF SRI LANKA**

**B.Sc./B.Ed. DEGREE PROGRAMME**

**BOTANY – LEVEL 05**

**FINAL EXAMINATION – 2012/2013**

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

**DURATION : TWO (02) HOURS**

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**Date : 17<sup>th</sup> December 2013**

**Time : 9.30 a.m. – 11.30 a.m.**

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**No. of Questions – 06**

**No. of Pages – 02**

**ANSWER ANY FOUR (04) OF THE FOLLOWING QUESTIONS.**

01.
  - a. What is meant by “maturity index of a commodity”?
  - b. Briefly explain the advanced techniques that are used to assess the most appropriate commercial maturity stage of fresh produce.
  - c. Explain why the climacteric behavior in fruits is important in determining their commercial maturity.
  - d. List the steps that can be applied to maintain the quality of cut flowers.
  
02.
  - a. Describe the ways by which culls are utilized for different purposes.
  - b. Explain the term “minimal processing”
  - c. Discuss the advantages and disadvantages of minimal processing.
  - d. What are the problems associated with minimal processing? State how you would minimize these problems.
  
03.
  - a. Briefly mention what is meant by the term “shelf life”
  - b. Describe the effects of adverse low temperature and adverse high temperature on storage life of harvested fresh produce.
  - c. Discuss how post-harvest diseases could be controlled during storage using physical treatment.

04.
  - a. What is the main purpose of packaging?
  - b. Briefly discuss the main points that are considered in the usage of packaging.
  - c. Discuss the major criteria considered in designing a package.
  - d. List the effects of increased oxygen levels on stored fresh produce.
05.
  - a. Briefly describe the sanitation practices used in the field to control diseases caused by bacteria and fungi.
  - b. Name the two inbuilt systems of self defense present in plants and explain these systems briefly.
  - c. "Diseases and disorders result in loss of both quality and quantity of fresh produce". Discuss this statement.
06. Write short notes on the following:
  - a. Compositional changes that take place in fruits during ripening.
  - b. Sophisticated methods used for pre-cooling of fresh produce.

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