THE OPEN UNIVERSITY OF SRI LANKA

B.Sc./B.Ed. DEGREE PROGRAMME

BOTANY – LEVEL 05

FINAL EXAMINATION – 2013/2014

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

DURATION : TWO (02) HOURS

Date : 30.11.2014   Time : 9.30 a.m. – 11.30 a.m.

ANSWER <u>ANY FOUR (04)</u> OF THE FOLLOWING QUESTIONS.

01.   a)   What are the properties of ethylene?

      b)   Briefly describe the role of ethylene in fruit ripening.

      c)   List the deleterious effects of ethylene which result in reduction of quality in a wide range of commodities.

      d)   Describe the different methods that are being used to protect the commodities from ethylene damage.

02.   Discuss the following;

      a)   Use of recombinant DNA technology in extending the post-harvest life of fresh produce.

      b)   Physical damage of fresh produce which leads to post-harvest losses.

03.   a)   List the maturity indices used to determine the maturity of commodities.

      b)   Briefly describe the appropriate conditions for harvesting of fresh produce and minimizing field heat.

      c)   Explain the following:

           i.   Harvesting and handling of fresh herbs.

           ii.   Xylem occlusion.

04. a) What is meant by 'quality' in relation to fresh produce?

b) Describe the quality criteria used to detect the quality of fruits and vegetables.

c) Briefly describe the factors influencing quality.

05. Write short notes on the following.

a) Control of post-harvest losses using chemical treatments.

b) Minimal processing technology used in food preparation.

06. a) What is meant by "packing house operations"?

b) Briefly describe the post-harvest treatments applied to fresh produce in pack houses.

c) Discuss the specialized treatments which are applied to maintain quality, reduce disease severity and lengthen the storage life of fresh produce.

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