

The Open University of Sri Lanka



Faculty of Natural Sciences B.Sc/ B. Ed Degree Programme

Department	: Botany
Level	: 05
Name of the Examination	: Final Examination
Course Title and - Code	: Postharvest Technology of Fresh Produce BY45308/Bou3108
Academic Year	: 2019/2020
Date	: 9 th November 2020
Time	: 9.30 a.m.-11.30 a.m.
Duration	: 02 Hours

General Instructions

1. Read all instructions carefully before answering the questions.
2. This question paper consists of 06 questions in 03 pages.
3. Answer any 04 questions only. All questions carry equal marks.
4. Answer for each question should commence from a new page.
5. Draw fully labelled diagrams where necessary
6. Involvement in any activity that is considered as an exam offense will lead to punishment
7. Use blue or black ink to answer the questions.
8. Clearly state your index number in your answer script

1. (a) What are anti-ethylene compounds?
 - (b) Briefly describe how anti-ethylene compounds inhibit the effects of ethylene
 - (c) "Ethylene has both beneficial and harmful effects on harvested fresh produce". Discuss this statement.
 - (d) What is meant by "induced ripening"? What are the advantages of induced ripening?

2. (a) What is meant by "maturity index" of a commodity?
 - (b) Briefly describe the advanced techniques that are practiced to identify the most appropriate maturity stage of fruits and vegetables.
 - (c) Explain the following:
 - (i) Harvesting and handling of fresh herbs
 - (ii) Procedures that could be followed to maintain quality of cut flowers

3. Discuss the following:
 - (a) Pre-storage cooling is practiced as a post-harvest technology for disease management and maintain quality of fresh produce.
 - (b) Pre-harvest practices that could be adopted to control post-harvest diseases

4. (a) What is the main purpose of packaging?
 - (b) Briefly describe the different methods used for packing agricultural produce.
 - (c) State why ventilation in packages is necessary during storage and how it is achieved.
 - (d) Briefly explain how proper stacking should be done to minimize both physical and environmental damage.

5. (a) What is meant by 'Quality' in relation to fresh produce?
 - (b) Briefly describe the major criteria used in detecting the quality of fruits and Vegetables.
 - (c) Discuss how genetic manipulation has contributed to improving the quality of fresh produce.

6. Write short notes on the following:
 - (a) Methods that can be adopted to minimize the deleterious effects of ethylene on harvested commodities.
 - (b) Surface coating or waxing; a specialized treatment applied to certain fresh produce

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