

The Open University of Sri Lanka
Faculty of Natural Sciences
B.Sc./B.Ed. Degree Program



Department	: Botany
Level	: 05
Name of the Examination	: B.Sc. Degree Program-Final Examination
Course Title and - Code	: Postharvest Technology of Fresh Produce BYU5308/BYE5308
Academic Year	: 2024/2025
Date	: 18 th May 2025
Time	: 9.30 a.m. – 11.30 a.m.

General Instructions

1. Read all instructions carefully before answering the questions.
 2. This question paper consists of **06** questions in **02** 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
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01. a) List the preharvest treatments that help to control postharvest diseases
 b) Postharvest disease control methods can be classified under physical, chemical and biological treatments. Briefly describe the control of postharvest diseases using chemical treatments.
 c) State the advantages of hot water dipping of fruits
 d) Briefly discuss the use of bio-control agents in postharvest disease control

02. a) What is meant by the term "shelf life"?
 b) Explain the advantages of pre-cooling fruits and vegetables
 c) List the factors that must be considered when selecting the most appropriate pre-cooling method for fresh produce
 d) Briefly describe the sophisticated methods used for pre-cooling of fresh produce

03. Packing house operations involve a series of processes designed to ensure the quality and safety of the produce before it reaches the consumer.
 a) Describe the postharvest treatments applied to fresh produce in pack houses
 b) What are the advantages of 'sorting' and 'grading' of fresh produce?
 c) What is meant by 'wax coating' of fresh produce? Mention the types of waxes used for fruit coating.
 d) Briefly explain the purpose of waxing of fresh produce

04. a) State the primary purpose of packaging fresh produce
 b) Briefly describe the different types of plastic material used for packaging
 c) Explain concisely how vacuum packaging and shrink-packaging techniques are performed
 d) State why ventilation in packaging is necessary during storage and how it is achieved

- 05 a) Define what is meant by the 'quality' of fresh produce
- b) List the factors that influence quality
- c) Describe the methods of quality evaluation of fruits and vegetables
- d) Briefly describe the postharvest handling procedures used to attain good quality of fresh produce
- 06 Write short notes on the following:
- a) Mode of action of ethylene
- b) Effects of adverse low temperature and adverse high temperature on storage life of harvested fresh produce

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