



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**Bachelor of Science in Applied Sciences
Third Year – Semester I Examination – July/August 2023**

BOT 3203 – POSTHARVEST TECHNOLOGY OF PLANT PRODUCTS

Time: Two (02) hours

Answer FOUR (04) questions only.

1. Discuss the importance of seed storage in maintaining seed viability and quality, emphasizing its importance in the context of sustainable agriculture. **(100 marks)**

2. a) List three (03) challenges and three (03) opportunities in postharvest management for small-scale farmers in Sri Lanka. **(30 marks)**

- b) Explain five (05) factors that highlight how public-private partnerships and collaborations among various stakeholders can contribute to the development and adoption of innovative postharvest management practices. **(70 marks)**

3. Citing suitable examples, discuss how the characteristics of a produce (a vegetable or a fruit) and its intended market influence the selection of precooling methods. **(100 marks)**

4. Design a comprehensive postharvest handling system for mangoes, considering the key aspects of harvesting, pre-cooling, sorting, grading, treatment, packaging, and storage, to ensure the highest quality and extended shelf life of the mangoes while minimizing postharvest losses and meeting market demands. **(100 marks)**

5. a) Explain five (05) techniques or treatments used to extend the vase life of cut flowers. **(50 marks)**

- b) Discuss briefly the recommended temperature ranges for temperate and tropical cut flowers. Justify your answer by providing specific examples. **(50 marks)**

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