



Index Number:

UNIVERSITY OF COLOMBO, SRI LANKA  
FACULTY OF TECHNOLOGY

LEVEL I EXAMINATION IN TECHNOLOGY – Semester II – 2019

AG 1005 – Protected Agriculture

Answer all questions  
Time: One (01) hour  
No. of Pages: 06  
Total 100 marks

**Important Instructions to Candidates**

- If a page or a part of this question paper is not printed, please inform the supervisor immediately.
- Enter your Index Number on all pages in the answers script.
- **STRUCTURED ESSAY TYPE:** Write the answers to these questions in the space provided in the question paper.
- **ESSAY TYPE:** Write the answers to the questions on booklets provided.
- **MCQ TYPE:** Underline the correct answer in paper.
- Electronic devices capable of storing and retrieving text, including electronic dictionaries and mobile phones are not allowed.

Question	Marks
1	
2	
3	
4	
Total	

1. a) List **five (05)** advantages of protected agriculture over crop production in open fields.

(5 marks)

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b) Give **five (05)** characteristic features of crop production technology under protected environments.

(5 marks)

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c) Briefly discuss the importance of protected environments for marginal lands.

(5 marks)

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d.) List **five (05) major** crops cultivated under protected environments in Sri Lanka.

(5 marks)

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e) "Cereal crops are not commonly grown under protected environments"

Briefly discuss the above statement. (5 marks)

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2) a) List **five (05)** crop growth factors used under controlled environments. (5 marks)

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b.) Name **five (05)** factors that determine light intensity under protected environments. (5 marks)

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c.) Write short notes on the followings  
i. Advantages of using lamps in green houses (5 marks)

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ii. Importance of temperature regulation in protected agriculture. (5 marks)

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d) Briefly explain the effect of low relative humidity (RH) on plants in protected environments. (5 marks)

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3) a) List five (05) desirable features of a growing medium used in protected agriculture. (5 marks)

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b.) Briefly explain the process of "soil pasteurization". (6 marks)

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c) Give importance of mulching material for the management of light level in a green house.

(7 marks)

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d) Briefly explain the methods of relative humidity control in a poly tunnel. (7 marks)

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4) a) Briefly describe the factors to be considered while designing structures for protected agriculture. (8 marks)

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b) List **four (04)** types of roofing materials used in controlled environments for crop production. (4 marks)

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c) Briefly explain the special techniques of pest management in protected agriculture systems.

(5 marks)

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d) Give importance of agriculture practices under controlled environments for urban agriculture in Sri Lanka.

(8 marks)

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