



SLIATE

SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

**Higher National Diploma in Technology (Agriculture)
Second Year, Second Semester Examination – 2016
AG 2209-Protected Agriculture & Floriculture**

Instructions for Candidates:

Answer all questions from part 1 and any three (03) from part- 11
All questions do not carry equal marks

No. of questions: 06

No. of pages : 03

Time allowed : **Two (02) hours**

Part -1

Question No 01

(Total 12.5 marks)

(i) Define the term “Protected Agriculture”

(02 marks)

(ii) Name **three (03)** methods that can be used to control shade condition in the protected houses in Sri Lanka.

(03 marks)

(iii) Name **three (03)** factors to be considered when planning a poly tunnel construction.

(03 marks)

(iv) List out three **(03)** features to be considered when selecting crops for protected houses in Sri Lanka.

(4.5 marks)

Question No 02

(Total 12.5 marks)

- (i) List out **two (02)** effects of high day and night temperature on crops in a protected house. **(02 marks)**

- (ii) Write **three (03)** features of a good nursery media for a protected house. **(03 marks)**

- (iii) Name **two (02)** commonly used fertilizer mixtures used in preparation of hydroponic solutions. **(03 marks)**

- (iv) Name **three (03)** types of solid media culture techniques used in hydroponic system. **(4.5 marks)**

Part -11

Question No 03

(Total 25 marks)

- (i) Briefly explain the effect of light and temperature on rose cultivation? **(05 marks)**
- (ii) Briefly describe the propagation techniques used in rose cultivation? **(10 marks)**
- (iii) What are the potentials to develop floriculture industry in Sri Lanka? **(10 marks)**

Question No 04

(Total 25 marks)

Write short notes on the following.

- (i) Importance of maintenance of pH and Electrical conductivity of hydroponic solution. **(06 marks)**
- (ii) Storage of orchid flowers as a post-harvest technique. **(09 marks)**
- (iii) Possible reasons for pest and disease problems in protected houses. **(10 marks)**

Question No 05

(Total 25 marks)

- (i) Briefly explain the following techniques regarding anthurium cultivation.
 - a. Gutter/Bed cultivation. **(08 marks)**
 - b. Packing of anthurium flowers. **(08 marks)**
- (ii) What are factors affect on continuous supply of vegetables to the local market in Sri Lanka? **(09 marks)**

Question No 06

(Total 25 marks)

- (i) What are the techniques to be used to control disease outbreak in protected houses? **(10 marks)**
- (ii) Briefly explain the reasons for under development of hydroponic cultivation systems in Sri Lanka. **(15 marks)**