

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	: Horticulture BYU5609
Academic Year	: 2019/2020
Date	: 19.12.2020
Time	: 9.30-12.30am
Duration	: 03 hours

General Instructions

1. Read all instructions carefully before answering the questions.
2. This question paper consists of **two parts. Part A-Structured type and Part B -Essay type. Part A- Answer all questions. Part B- Select only Four (04) questions out of Six (06) Number of questions given..**
3. Answer for each question should commence from a new page.
4. Draw fully labelled diagrams where necessary
5. Involvement in any activity that is considered as an exam offense will lead to punishment
6. Use blue or black ink to answer the questions.
7. Clearly state your index number in your answer script

PART A- Structured Type Questions**Answer ALL the questions**

1.

(a) *'Dwarfing apple cultivars could be produced through grafting of scion, inter-stock and rootstock'*

Briefly mention the importance of an inter-stock in this grafting method?

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(b) How do you graft a plant with an inter-stock? Illustrate your answer using a diagram?

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(c) Briefly explain one method of grafting which could increase the vigor of scion?

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2. Write short notes on the following.

Scarification

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Cryopreservation

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Totipotency

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Espalier system

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De-suckering

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3. Complete the table below with suitable words

Fresh Produce	Two (02) common diseases	Field Establishment Practices to control the disease.
Pineapple		
Banana		
Papaya		
Citrus		
Mango		

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Part B-Essay type Questions

Answer ONLY Four (04) Questions

1. *'Floating hydroponics of static solution culture is commonly used in developed countries to grow leafy vegetables'*
 - (a) Differentiate between floating hydroponic culture and aggregate hydroponic culture?
 - (b) Discuss the importance of aggregate hydroponic system for growing vegetables in Sri Lanka?
 - (c) Assume that, you have been assigned to manage a project which supplies strawberries for local market. The fruit production should be carry out using soil-free methods. What is the type of soil-free method you would select? Justify your selection
2. Suppose that you are given a mission to explain the crop productivity of soils to a group of farmers and entrepreneurs who are not familiar with technical aspect of soil management. Explain how would you proceed to accomplish your mission?
3. *'Organic farming is widely recognized as a sustainable farming system in contrast to the farming systems which use inorganic fertilizer extensively'*
 - (a) Critically discuss the above statement by highlighting the advantages and disadvantages of each system of farming?
 - (b) Briefly describe constraints faced by Sri Lankan Farmers in adoption each system of farming?
4. Discuss the importance of Proper postharvest handling of Tomato (*Lycopersicon esculentum*) and Cabbage (*Brassica oleracea*)
5. Orchid and anthurium are two of the major commercially produced horticultural crops grown in local green houses.
Discuss the production process of the two crops giving emphasis to the control of temperature, irrigation and light in green houses.
6.
 - (a) Briefly explain the basic principles needed to be considered in floral arrangements?
 - (b) List **Five (05)** flower drying methods? Explain **two (02)** of the methods listed above in part (b)

