

UNIVERSITY OF RUHUNA
BACHELOR OF SCIENCE (GENERAL) DEGREE EXAMINATION – JULY 2016
LEVEL III SEMESTER I

Subject : Botany
Course Unit : Principles of Horticulture and Landscaping - BOT3122
Time : One hour and 30 minutes
Index No. :

Answer ONLY THREE questions including question No. 1

1) a) **Circle true (T) or false (F) for the following statements** (12 Marks)

- i) T F Hibiscus can be propagated only by leaf cuttings.
- ii) T F Grafting can be successfully done only among closely related plant species.
- iii) T F Hydroponic produces disease free vegetables.
- iv) T F Pruning of plants retards the apical dominance.
- v) T F Landscaping increases the property value of a land.
- vi) T F Some horticultural plants attract poisonous snakes.

b) What is meant by vegetative propagation of horticultural plants? (05 marks)

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c) What is the primary difference between sexual propagation (seeds) and asexual propagation (vegetative)? (10 marks)

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d) Give five advantages of vegetative propagation compared to seed propagation. (10 marks)

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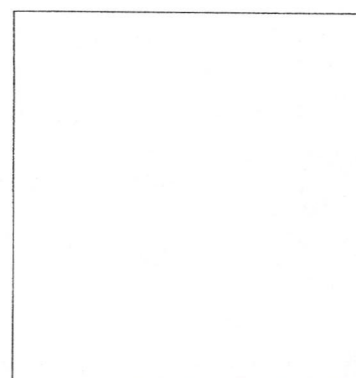
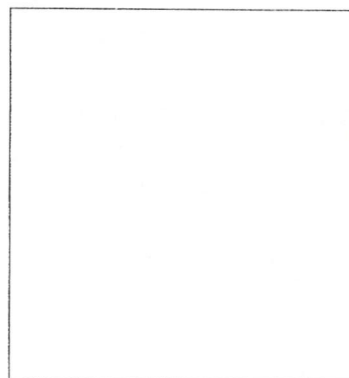
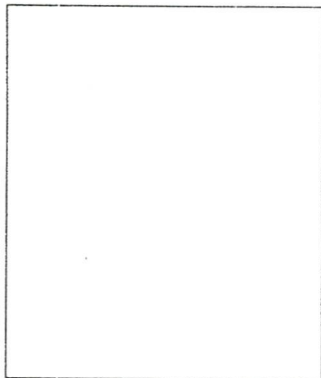
e) Following table is based on the asexual propagation of plants. Complete it.

(18 Marks)

Asexual propagation method of plants	An example of plant species (Scientific name only)
Natural method	
i)	
ii)	
Artificial Method	
iii)	
iv)	
v)	
vi)	

f) Give suitable illustrations for any three of artificial propagation methods mentioned in above table.

(09 marks)



h) What do you mean by “Scion” and “Rootstock” in grafting?

(08 marks)

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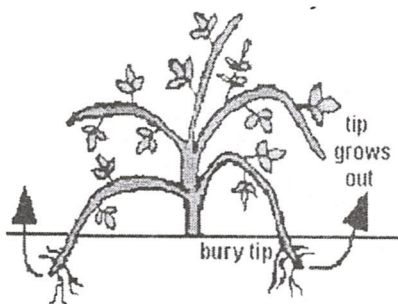
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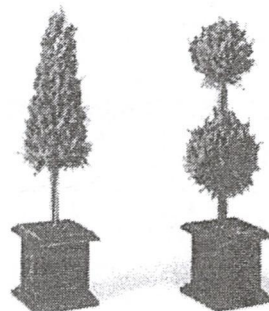
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i) Identify following diagrams

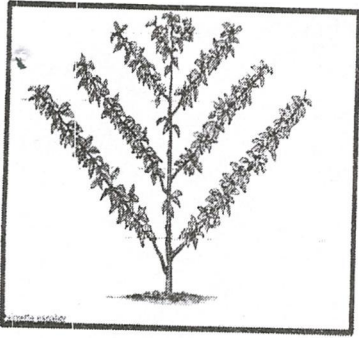
(10 marks)



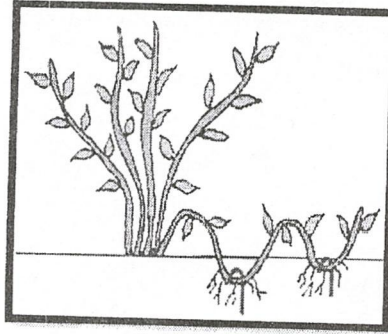
Eg. Tip layering



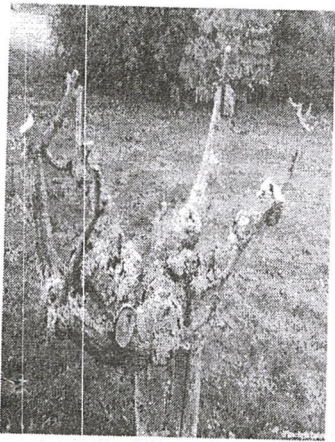
i).....



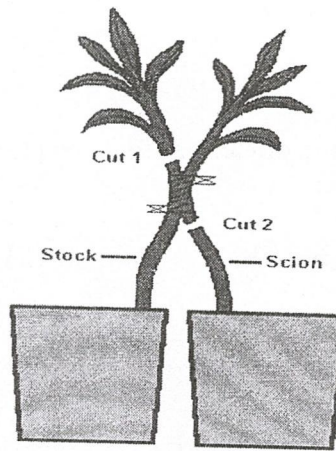
ii)



iii)



iv)



v)

h) Mention two roles of a rooting medium.

(04 Marks)

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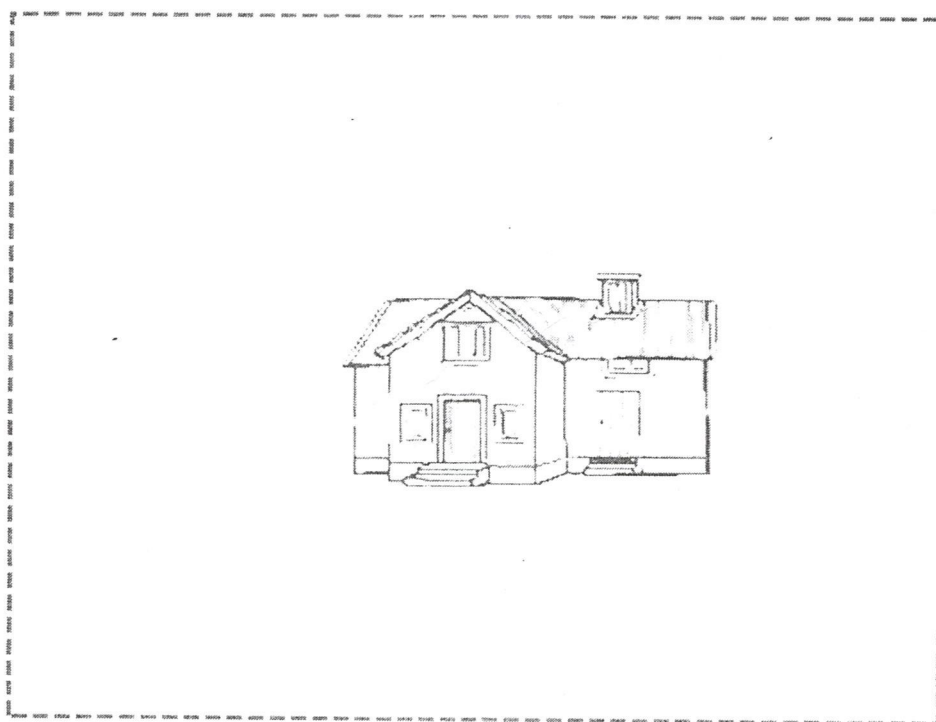
i) Classify different hydroponics systems.

(14 Marks)

- (2) i) What is horticulture ? (10 Marks)
- ii) "Horticulture is very important to society in variety of ways". Describe this statement. (40 Marks)
- iii) Explain briefly. (15 Marks)
- a) Pomology
 - b) Olericulture
 - c) Floriculture
- iv) Describe briefly adverse effect of horticulture. (25 Marks)
- v) What are the limitations in Horticultural industry? (10 Marks)

- 3). i) Briefly describe the objectives to be achieved by landscaping an abandoned land. (40 Marks)
- ii) Explain the difference between soft and hard landscaping. (10 Marks)
- iii) List the roles of following professionals.
- a) Landscape architect (06 Marks)
 - b) Landscape constructor (06 Marks)
 - c) Nurseryman (14 Marks)
 - d) Garden keeper (08 Marks)

- iv) Following diagram shows a land with a house.



Point out the most suitable place for a access way (a) , hedge (b), pond (c), garage (d), wall (e), jack tree (f), flower bed (g), bench (h), compost pit (i), dog cage (j) in the diagram. (16 Marks)

4) Write short notes on followings.

i) Importance of hydroponics. (25 Marks)

ii) Agronomic importance of plant pruning. (40 Marks)

iii) Advantageous and disadvantageous of growing plants in protected environment. (35 Marks)