Model Paper B.Sc. (Hort) I Year, II Semester

HPH-200: Plant Propagation and Nursery Management

Max. Time: 1/2 hour Max. Marks: 20

Part-A

Note: Attempt any **20** questions. Each question carries equal marks. Cutting and over writings are not allowed.

- I. Encircle the most appropriate answer of the following multiple choice type questions: $(10X\ 0.5)$
 - **1.** Polyembryony is common in :

a. Citrus

b. Apple

c. Peach

- d. Papaya
- 2. Papaya and coconut are propagated by:

a. Asexual method

b.Sexual method

c. Budding

- d. None of these
- 3. Mutations in a portion of branch is known as:

a. Chance seedling

b. Gene mutation

c. Bud sport

- d. Chimera
- **4.** Spur type verities of apple is examples of:

a. Bud-sports

b. Mutation

c.Chance seedling

- d. None of these
- 5. Nucellar seedlings are free from:

a.Viruse

b.Insect

c. Disease

- d.Bacteria
- **6.** Red colored apple cultivars are examples of

a. Sectorial chimeras

b. Periclinal chimera

c. Mericlinal chimeras

- d. None of these
- **7.** Temperature during stratification should be between:

a. 8-10°C

b. 10-12⁰C

c. 4-7°C

- d. $6-8^{\circ}$ C
- **8.** Type of dormancy in walnut, stone fruits and olive:

a. Exogenous dormancy

b. Endogenous dormancy

c. Double dormancy

- d. Secondary dormancy
- 9. Grape, hazelnut and chestnut are propagated by:
 - a. Hard wood cuttings

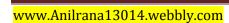
b. Semi hard wood cutting

	c. S	Soft wood cutting d. herbaceous cuttings
	10. The most potent germination promoter, breading seed dormancy in many species is	
	a. (GA b. Auxin
	c. (Cytokinin d. ABA
II.	Fill in	the blanks with most appropriate words: (10 X 0.50)
	1.	The thin layer of tissues located between the bark and the wood is called
	2.	Capacity of individual cell to produce new plant is referred as
	3.	in commercially used auxin for induction of rooting in
		cuttings.
	4.	Rhizocaline is a complex of i)ii)and
		iii
	5.	ppm refers to
	6.	causes enlargement of plant-cells.
	7.	Veneer grafting is commercially used in
	8.	The most common method of propagation for roses is
	9.	Scooping and scoring methods are basically used to remove
		encourage formation.
	10.	In stooling the mother plant is headed back at
		above ground level.
III. Write down whether the statement is true or false (T/F): (10 X 0.		
	1.	Auxins are produced in Meristimatic cells. ()
	2.	One should use floral bud than vegetative buds for budding ().
	3.	Tongue grafting is done in the month of June-July. ()
	4.	Callus is the mass of parenchyma cells that develops from and around the
		wounded plant tissues ()
	5.	Cleft-grafting is most widely used techniques for top working of large /old trees.
		()
	6.	Air layering is performed in winter season. ()
	7.	Litchi is commercially propagated by Mound layering. ()
	8.	Soft wood cuttings generally root easier and quicker than other type of cuttings.
		()
	9.	Hard wood cuttings are prepared during growing season. ()
	10.	Sand is the best medium for stratification of Seeds. ()

IV. Match the following:

- **1.** Adventitious Embryony
- 2. Stratification
- **3.** Root cutting
- **4.** Air layering
- **5.** Bridge grafting
- **6.** Non-tunicate
- **7.** Offshoots
- **8.** Recurrent Apomixis
- **9.** Tunicate bulbs
- **10.** Runner

- a) Mulberry
- b) Litchi
- c) Mango
- d) Epicotyl dormancy
- e) Allium
- f) Repair grafting
- g) Strawberry
- h) Lily
- i) Pineapple
- j) Garlic



Model Paper B.Sc. (Hort) I Year, II Semester

HPH-200: Plant Propagation and Nursery Management

Max. Time: 2 ½ hrs M. M: 30

Part-B

Note: Attempt any six questions. All questions carry equal marks. $6 \times 5.0 = 30$

- 1. What do you mean by sexual and asexual methods of propagation? Describe merits and demerits of these methods.
- 2. Explain the use of following as propagate.
 - i) Bridge grafting
 - ii) Stooling
- 3. Why we opt for grafting or budding? Enlist different methods of grafting employed for propagation of fruit crops.
- 4. Differentiate the following
 - i) Tunicate and non-tunicate bulbs
 - ii) Runner and Suckers
- 5. Discuss about the different stages of bud/graft union formation.
- 6. Give a detailed description on physiological basis of rooting of cuttings
- 7. Write short note on the following:
 - i) Graft incompatibility
 - ii) Apomixis
- 8. What do you understand by micro-propagation? Discuss its merits and demits. Enlist different stages of micro-propagation.