

**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 varieties 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. 10-12°C
  - c. 4-7°C
  - d. 6-8°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



**IV. Match the following:**

- |                          |                      |
|--------------------------|----------------------|
| 1. Adventitious Embryony | a) Mulberry          |
| 2. Stratification        | b) Litchi            |
| 3. Root cutting          | c) Mango             |
| 4. Air layering          | d) Epicotyl dormancy |
| 5. Bridge grafting       | e) <i>Allium</i>     |
| 6. Non-tunicate          | f) Repair grafting   |
| 7. Offshoots             | g) Strawberry        |
| 8. Recurrent Apomixis    | h) Lily              |
| 9. Tunicate bulbs        | i) Pineapple         |
| 10. Runner               | j) Garlic            |

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**Max. Time: 2 ½ hrs**

**M. M: 30**

**Part-B**

**Note:** Attempt any **six** questions. All questions carry equal marks. **6 × 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.