

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc. (Hons.) Horticulture

[ICAR-Sixth Deans' Committee Recommended Syllabus]

Semester	: II (New)	Term	: Second	Academic Year	: 2024-25
Course No.	: VS-121	Title	Plant Propagation and Nursery		
Credits	: 3(1+2)		: Management in Vegetables, Flowers and Medicinal crops		
Day & Date	: Wednesday, 02.07.2025	Time	: 10:00 to 12:00 hrs.	Total Marks	: 40

- Note :
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 a) Define Seed dormancy. Write about exogenous seed dormancy.
b) Enlist the methods to break seed dormancy.
- Q.2 What is Nursery? Enlist the types and components of nursery.
- Q.3 a) Explain in detail seed germination and factors affecting it.
b) What are the characteristics of ideal growing media?
- Q.4 Write in brief about asexual methods of plant propagation with its merits and demerits.
- Q.5 Write short notes on (Any Two):
- a) Hot beds
 - b) Meiosis cell division
 - c) Layering
- Q.6 a) Explain in detail about budding.
b) Write in detail about micropropagation.
- Q.7 a) Write in detail about maintenance of elite germplasm and mother stock.
b) What is the role of plant growth regulators in plant propagation?
- Q.8 Write in brief about propagation from specialized modified plant part.
- Q.9 a) What is the need of plant propagation?
b) Explain in detail stem cutting method of propagation.
- Q.10 Write in brief the impact of genes on propagation.

(P.T.O)

SECTION 'B'

Q.11 State True or False:

- 1) Recalcitrant seeds are required to be kept for many years, perhaps very long periods.
- 2) Stratification is a method of handling dormant seeds in which the imbibed seeds are subjected to a period of chilling to after-ripen the embryo in alternate layers of sand or soil for a specific period.
- 3) Greenhouses can be cooled mechanically in the summer by use of large evaporative cooling units.
- 4) The most commonly used chemical for rooting purpose is Indole Acetic Acid (IAA).

Q.12 Fill in the blanks:

- 1) The most important factor influencing seed viability during storage is the _____.
- 2) _____ affects seed germination and dormancy by affecting different parts of the seed.
- 3) All the biological principles of micropropagation techniques are based on the phenomenon of _____ of cell.
- 4) _____ involves aseptic excision of the embryo and its transfer to a suitable medium for the development under optimum culture conditions.

