

Total No. of printed pages = 4

63/2 (SEM-1) BOT 106 (OE)

2021

(held in 2022)

BOTANY

(Theory Paper)

Paper Code : BOT-106(OE)

(Plant Propagation and Nursery Management)

Full Marks – 50

Time – Two hours

**The figures in the margin indicate full marks
for the questions.**

1. Answer the following questions : 1×6=6

**(a) Which of the following requires maximum
irrigation ?**

(i) Clay soil

(ii) Loamy soil

(iii) Sandy soil

(iv) Both (ii) and (iii)

[Turn over

- (b) The main aim of misting is to
- (i) Maintain continuous film of water on leaf
 - (ii) Keep the cuttings turgid surface
 - (iii) Reduce transpiration
 - (iv) All of these
- (c) The process of weakening the seed coat to break seed dormancy is called
- (i) Stratification (ii) Vernalization
 - (iii) Scarification (iv) Photoperiodism
- (d) Girdling is done in which of the following techniques ?
- (i) Cutting (ii) Grafting
 - (iii) Layering (iv) All of these
- (e) The oldest bonsai in Italy is that of ____.
- (i) *Ficus benjamina*
 - (ii) *Ficus retusa*
 - (iii) *Ficus microcarpa*
 - (iv) *Ficus lyrata*

- (f) Totipotency is the ability of a _____ to develop into a new plant.
- (i) callus (ii) single cell
 - (iii) seed (iv) cutting.

2. Answer any six of the following questions :

6×2=12

- (a) State the different types of nursery beds.
- (b) What is the role of green-house in a nursery ?
- (c) Mention the precautions to be taken during the preparation of nursery beds.
- (d) How is grafting more significant than traditional means of developing plants ?
- (e) What are callus ?
- (f) What does graft incompatibility mean ? State the reasons of its occurrence. 1+1=2
- (g) Citing examples state the role of plant regulators in plant propagation.
- (h) What do you mean by cocopeat ? How can you prepare cocopeat at home ?

3. Write short notes on any *four* : $5 \times 4 = 20$

- (a) Nursery Registration Act
- (b) Bonsai
- (c) Techniques of breaking seed dormancy
- (d) Role of a nursery
- (e) Apomixis
- (f) Polyembryony.

4. Define nursery. What are the characteristic features of a good nursery ? Discuss the various ways of controlling pest and diseases in a nursery.

$2+5+5=12$

Or

Define the term propagation. Describe briefly the various ways of propagating plants vegetatively. What are its advantages and disadvantages ?

$1+7+4=12$