

# ADD ON COURSE: NURSERY MANAGEMENT DEPARTMENT OF BOTANY

L.T.K. COLLEGE, Azad, Lakhimpur, 787032, Assam

# 1. Aims and Objectives:

- a. To strengthen the promotion of cutting grafting in the cultivation of ornamental plants.
- b. To know the scientific seedlings.
- c. To create new employment opportunities for students and the youth through establishment of nursery
- d. To empower rural communities with entrepreneurial skills through use horticultural techniques

Range Azau VI.

## **PAPER - 1: SYLLABUS**

# **COURSE NAME: NURSERY MANAGEMENT**

#### **THEORY**

#### Unit I

Introduction of nursery: types of nursery and nursery beds; Size and layout of nursery beds; Fencing, irrigation, sowing, thinning, transplanting, root pruning, Topping, Hardening off, Shading, Weeding, Grading of planting stock; handling, storing and transportation, coppice, root suckers.

## Unit II

Establishment of nursery: Selection of nursery sites, preparation of seed beds. soil working; growth medium; compost, green manure, lime, commercial fertilizer and bio-fertilizer in nursery, staking: nurse and cover crops, plant bio-regulators.

## Unit III

Artificial and natural regeneration; sowing of seeds and planting, fumigation; pre-sowing treatments. Methods of seed sowing and mulching; seedling growth and development, seedling establishment period; containerised nursery technique- type and size of containers; root trainer techniques- preparation of ingredient mixture; stump preparation; regeneration survey.

# **Unit IV**

Basic concept of disease and pest management in nursery, nursery diseases and their control, parasitic organisms and its management; dying back of seedling; cultural operation for natural regeneration, girdling.

# Unit V

Planting out of nursery seedling, site preparation, planting period, spacing, size and age of planting stock, transportation, plantation time table, methods of planting, watering, pattern of planting, maintenance of plantation, plantation cost, staff and labours, nursery register.

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# PAPER - 2

# (Practical)

- 1. To prepare layout of nursery and preparation of different type of nursery beds.
- 2. Soil working and sterilization.
- 3. Rising of stocks-sowing of seeds and cuttings in nursery beds.
- 4. Pre-sowing treatment of seeds and cuttings
- 5. Collection and storage of seeds.
- 6. Study of different types of seed germination techniques.
- 7. Study of different diseases related to nursery practices.
- 8. To conduct regeneration survey
- 9. Study of some exotic species
- 10. Visits to various nurseries

# 3. Class Routine:

Days	Time
Monday	2.00 pm – 3.00 pm
Tuesday	2.00 pm – 3.00 pm
Wednesday	2.00 pm – 3.00 pm
Thursday	2.00 pm – 3.00 pm
Friday	2.00 pm – 3.00 pm

# 4. Photo:







# 5. Student List:

# List of Students Enrolment and Students Who Completed the Course

SL No	Student Name
1	Tanmoy Phukan
2	Abranlle Gogoi
3	Amlan Gogoi
5	Armit Rajkhuwa
6	Anamika Borah
7	Anurunan Dutta
8	Binita Borah
9	Dikpol Lahon
10	Dipak Bharali
11	Gokul Handique
12	Krishti Moni Chetia
13	Partha Borah
14	Puja Gogoi
15	Roma Jaradhara
16	Sikhamoni Taid
17	Probin Barla
18	Pitamber Gushaami
19	Progyan Protim Borah
20	Suresh Hazarika



# 6. Question Paper:

# COURSE NAME: NURSERY MANAGEMENT DEPARTMENT OF BOTANY LTK COLLEGE, AZAD, NORTH LAKHIMPUR, ASSAM, 787031 Theory Paper

Time: 3 Hours Maximum: 100 Marks

- A. Answer of the following giving short notes: [10x1=10]
  - 1. Define nursery.
  - 2. What is seed?
  - 3. Define garden.
  - 4. Define cutting
  - 5. Define layering.
  - 6. What is polyhouse?
  - 7. What is vegetative propagation?
  - 8. What is rooting media?
  - 9. Define nursery bed.
  - 10. Biofertilizer
- B. Define any FIVE of the following:  $(5 \times 2 = 10)$ 
  - 1. Budding.
  - 2. Transplanting.
  - 3. Potting mixture
  - 4. Soft wood cutting
  - 5. Write an account of different irrigation methods
  - 6. What is the layout of a garden nursery?
  - 7. What are weeds? How will you manage the weed problem in a garden?
- C. Attempt any FIVE questions:(5×4=20]
  - 1. Write the importance of nursery.
  - 2. Write the merits of propagation from seeds.
  - 3. Describe two techniques of cutting with diagram
  - 4. Compare Organic manure and Inorganic manure.
  - 5. Micropropagation and Macropropagation.
  - 6. Sexual and Asexual propagation
- D. Define any FIVE of the following:  $(5 \times 12 = 60)$
- 1. Discuss the scope and importance of quality planning materials for nursery production.
- 2. Illustrate with suitable example on the nutrient management followed in nursery.
- 3. Discuss the disease management and control measures in nursery with suitable examples.
- 4. Write in detail the plant growth structures suitable for nursery plant production.
- 5. Discuss the constraints and prospects in production of quality planting materials.
- 6. Describe the maintenance of stock plants and display of plants.
- 7. What are the different types of growing media used in nursery production? Which growing media is considered the best for nursery raising?

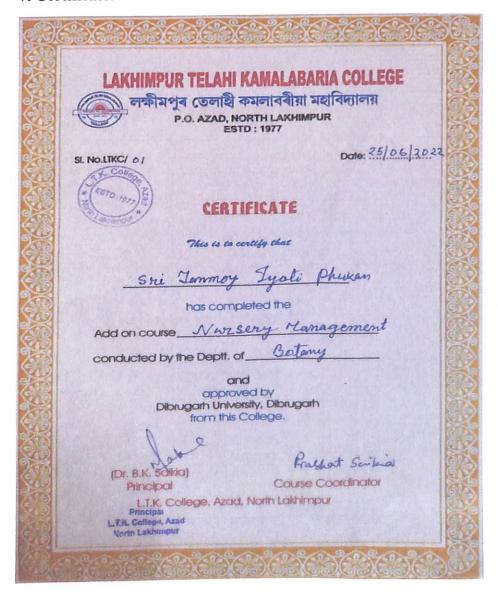
# COURSE NAME: NURSERY MANAGEMENT DEPARTMENT OF BOTANY

# LTK College, Azad, North Lakhimpur, Assam, 787031 Practical Paper

Time: 3 Hours Marks: 100

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	1.	Prepare layout of nursery and write about preparation of different type of nursery beds.	10
Kal	2.	Study of different types of seed germination techniques.	10
	3.	Study of different diseases related to nursery practices.	10
	4.	Demonstrate Pre-sowing treatment of seeds and cuttings.	30
	5.	Identification	10
	6.	Viva	10
	7.	Practical record book	10
	8.	Submissions	10

# 7. Certificate:





**8. Learning Outcome:** After the completion of the programme the students are capable of starting their own nursery and thereby fulfil the dream of Aatmanirbhar Bharat.

(Prabhat Saikia)

Course Co-ordinator

Add on Course

Department of Botany

L.T.K. College, Azad, North Lakhimpur

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