

**DEPARTMENT OF BOTANY
CITY COLLEGE**

EXCURSION SCHEDULE FOR THE ODD SEMESTERS: ACADEMIC SESSION 2024 - 2025.

Class / Year	Course Name	Date	Place of visit	Meeting Place & Time	Name of Teacher Guide
Semester 1 [NEP]					
4 Year BOTM DSCC 1	PLANT DIVERSITY	18.11.2024	SUVAS SAROBAR	SWABHUMI, 11 AM	SDG + SD
4 year ZOOM MN 1	PLANT DIVERSITY	18.11.2024	SUVAS SAROBAR	SWABHUMI, 11 AM	NC + AM + SY + SG ₁
3 Year MDC MBOT CC 1	PLANT DIVERSITY	18.11.2024	SUVAS SAROBAR	SWABHUMI, 11 AM	NC + AM + SY + SG ₁
Semester 3 [NEP]					
3 Year MDC MBOT MN 1	PLANT DIVERSITY	18.11.2024	SUVAS SAROBAR	SWABHUMI, 11 AM	NC + AM + SY + SG ₁
4 Year BOTM DSCC 3	ECONOMIC BOTANY	19.11.2024	RICE RESEARCH STN. CHINSURAH, HOOGLY	Howrah St. large Clock, 9.30 AM	SY + SG ₂ + SD
3 Year MDC MBOT CC 3	ECONOMIC BOTANY	19.11.2024	RICE RESEARCH STN. CHINSURAH, HOOGLY	Howrah St. large Clock, 10 AM	SY + SG ₂ + SD
4 Year BOTM DSCC 3	ECONOMIC BOTANY	11.12.2024	BSI GALLERY (ECO. BOT) INDIAN MUSEUM	Museum Gate 11 AM	AM + PK + SY
4 Year BOTM SEC 1	PLANT BIO TECH & HORTI. PRACTICES	26.11.2024	BCKV, MOHANPUR. NADIA	Sealdah Main Stn. 10 AM	RSG + PK + SG ₂
Semester 5 [CBCS]					
Botany Hons	PLANT BIOTECHNOLOGY	05.12.2024	TISSUE CUL. LAB. LADY BRABOURNE COL.	Lady Brabourne Col. Gate, 12 PM	SY + SG ₁ + SG ₂

Note: Students must carry the following items with them: 1. College ID Card 2. Note Book 3. Pen, Pencil 4. Camera (optional) 5. Polythene bag / pouches for keeping collecting specimens.

Arzoo Halder
HOD 13/11/24

Associate Professor and Head
Department of Botany
City College, Kolkata-9

Copy to :
1) Leave Section
2) Bursar
3) Cashier

Blat Chatterjee
13/11/2024

PRINCIPAL

Local excursion to Tissue Culture Laboratory at Lady Brabourne College, Kolkata

Date Of Visit : 05.12.2024

Place of Visit : Tissue Culture Laboratory, Lady Brabourne College ,Kolkata

Participants : Students of SEM III Hons (Under NEP) and SEM V Hons (Under CBCS System)

Teachers accompanied : Mrs.Sutapa Gupta and Dr.Partha Karak

No.Of Students : 11

Objectives Of Laboratory Study :

1. To make students understand the working principles and procedures of tissue culture.
2. To know and observe the laboratory set up and various equipments used for tissue culture practices.
3. To learn about the applications of tissue culture in agriculture, horticulture and other research activities.

Report :

Students of SEM III Hons (Under NEP) and SEM V Hons (Under CBCS System) had visited the Tissue culture laboratory at Lady Brabourne College where students had a hands on experience on Media Preparation and Sterile techniques to maintain aseptic conditions. Students learned about stages of micropropagation like initiation, multiplication, rooting etc. Students came to know about the operation of some laboratory equipments like laminar air flow cabinets, autoclave, growth chambers, incubators, magnetic stirrers etc. Students also came to know about various applications of tissue culture in the field of agriculture for propagation of high yielding disease resistant varieties, on producing various ornamental plants, conserving rare and endangered species, genetic engineering and molecular biology studies.

environment and industry (suitable example)- pest resistant plants (BT cotton), herbicide resistance, disease and stress tolerance, transgenic crop with improved quality (flavr tomato, golden rice), role of transgenic in population degradation (super-bug), leaching of minerals, production of industrial enzymes, oil, edible vaccine.

.....24 lectures

PRACTICAL- PLANT BIOTECHNOLOGY (BOT-A-DSE-B-5-5-P)

(Credits 2)

1. Field report on a visit to a tissue culture lab.
2. Classroom performance (Laboratory Records, charts/ models)
3. Viva

PLANT BIOTECHNOLOGY

1. Familiarization of basic equipments in plant tissue culture
2. Study through photographs/ charts/ models of anther culture, somatic embryogenesis, endosperm and embryo culture, micropropagation.
3. Preparation of basal media. Sterilization techniques.
4. Demonstration of any tissue culture technique during visit in a plant tissue culture lab.

DSE B

HORTICULTURAL PRACTICES AND POST- HARVEST TECHNOLOGY (BOT-A-DSE-B-5-6-TH)

THEORETICAL

(Credits 4, Lectures 60)

1. **Horticulture** –scope, importance and branches. Role in rural economy and employment generation; importance in food and nutritional security; urban horticulture and ecotourism.
.....4 lectures
2. **Ornamental plants:** types, classifications (annuals, perennials, climbers and trees), identification and salient features of some ornamental plants (rose, marigold, gladiolus, carnations, orchids, poppies, gerberas, tuberose, sages, cacti and succulants). Ornamental flowering trees (Indian laburnum, gulmohor, jacaranda, Lagerostoeimia, fishtail and Erica palms, simul, coral tree).
.....4 lectures
3. **Fruit and vegetable crops:** production, origin and distribution; description of plants and their


parts (orange, banana, mango, papaya, guava, litchi, bael, potato, cauliflower, carrot, onion, peas, brinjal, ridged gourd), 4.2 Fruit processing- scope and benefit.

PLANT TISSUE CULTURE AND HORTICULTURE PRACTICES (PRACTICAL)

BOT-H-SEC-3-P

Total marks- 25; Credit 1, Class 30 hours

1. Work out/ Demonstration	10 marks
2. Identification (ornamental flowers)	3 marks
3. Field report & Diary	5 marks
4. Class room performance (Practical notebook)	2 marks
5. Viva-voce	5 marks

 Field trip (any two with report submission) - Visit to plant tissue culture laboratory, gardens, standing crop sites, nurseries, vegetable plantations, horticultural fields at IARI/AHSI and cold storage.

2. Media preparation, sterilization and aseptic inoculation of explant for seed culture.
3. Propagation of two horticulturally important plants (each student needs to propagate plants following two separate vegetative methods; records and photographs to be authenticated by respective teacher and presented in a form of field diary during examination)
4. Identification of ornamental flowers as per theoretical syllabus

Textbook references:

PLANT TISSUE CULTURE

1. Chawla, H.S. An Introduction to Plant Biotechnology (2nd ed.), 2002, Oxford & IBH
2. Borer, A., Sentos, F.R. & Bowen, D.B. Understanding Biotechnology, 2003, Pearson Education
3. Ingacimuthu, S. Plant Biotechnology, 1997, Oxford & IBH
4. Walker, J.M. & Rapley, R. Molecular Biology & Biotechnology, 2000, Royal Society of

Excursion to Tissue Culture Lab,
Lady Brasourne College

05/12/24.

5th Sem. Hons.

Ishika Ghoshal. C-221302
Srishtoleb Sinha C-221202
Snehasis Das C-221203
Barun Ghoshal C-221210
AMRIT RAY C-221208
Deep Mondal C-221204

3rd Sem. Hons.

Aishwarya Manna - 231304
Heetika Jhundu - 231303
Nahid Tanveer - 231305
Ritika Roy - 231301
Bineet Sengupta - 231203.



DPS Map Camera

Kolkata, West Bengal, India

Gora Chand Road, Beniapukur, Kolkata, 700014, West Bengal, India

Lat 22.545284, Long 88.369121

12/05/2024 11:49 AM GMT+05:30



Kolkata, West Bengal, India

Gora Chand Lane, Beniapukur, Kolkata, 700014, West Bengal, India

Lat 22.545760, Long 88.369043

12/05/2024 11:51 AM GMT+05:30






Kolkata, West Bengal, India

Gora Chand Lane, Beniapukur, Kolkata, 700014, West Bengal, India

Lat 22.545808, Long 88.369105

12/05/2024 11:50 AM GMT+05:30

 GPS Map Camera



Kolkata, West Bengal, India

Gora Chand Lane, Benilapukur, Kolkata, 700014, West Bengal, India

Lat 22.545885, Long 88.369014

12/05/2024 11:50 AM GMT+05:30

GPS Map Camera

PLANT TISSUE CULTURE
LABORATORY



