

**DEPARTMENT OF BOTANY**

**DEVA MATHA COLLEGE, KURAVILANGAD**

**Affiliated to Mahatma Gandhi University, Kottayam**



**Report**

**on**

**ADD-ON COURSE**

**In Plant Tissue**

**Culture**

*Conducted for II DC Students*

**Academic Year: 2022-23**

# BROCHURE



**DEVA MATHA COLLEGE KURAVILANGAD**

**DEPARTMENT OF BOTANY**

*Add on Courses offered for Students : 2022-2023*

**Plant Tissue Culture  
DMCK/BOT/AD 01/2022**

*Department Coordinator: Ms.Varsha Maria Babu*



DMCK/BOT/AD

## ADD ON COURSE in

### DMCK/BOT/AD 01/2022:Plant Tissue Culture

Academic year	:	2022-2023
Title	:	DMCK/BOT/AD 01/2022: Plant Tissue Culture
Instructional Hours	:	30 Hours
Duration	:	2 Months
Mode of Instruction	:	Offline
Intake Capacity	:	30
Eligibility	:	Plus Two or Equivalent
Beneficiaries	:	II DC Botany Students
Date(s) on which program was conducted	:	February 2023- March 2023
Collaborating agency inside/outside the institute	:	NA
Organizing Dept	:	Dept. of Botany
Name of the Coordinator	:	Ms. Varsha Maria Babu
Number of students participated in the programme	:	20
Number of students completed the programme	:	20

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## **A BRIEF REPORT**

The Botany Department of Deva Matha College, Kuravilangad has organized an Add-on Course in **Plant Tissue culture** for the II DC Botany students of the college. 20 students registered and successfully completed the course. The course was conducted during the months of February and March of 2023. Resource Persons who engaged the classes were renowned in the respective area. The course is of 30 hours duration. The course is planned and executed as both theory and practical sessions. A tissue culture laboratory is also made familiar to the students.. Evaluation process included attendance, test papers and spot tests.

### **OBJECTIVES**

1. To enable students to be familiar with the process of Tissue Culture
2. To exercise creation of tissue cultured plantlets.
3. To familiarize a tissue culture laboratory

### **SYLLABUS**

- |  |          |
|--|----------|
| 1. <b>Brief history of tissue culture</b>                            | 1 Hour   |
| a. Cellular totipotency  |          |
| b. Concept of dedifferentiation, redifferentiation and organogenesis |          |
| 2. <b>Tissue culture media</b>                                       | 3 Hours  |
| Media composition  |          |
| Selection of media   |          |
| Media preparation  |          |
| 3. <b>Micropropagation</b>   | 6 Hours  |
| a. Selection of suitable material                                    |          |
| b. Stock plant selection   |          |
| c. Parts of plant  |          |
| d. Size of explants  |          |
| e. Avoid diseased tissue   |          |
| 4. <b>Types of plant tissue culture</b>                              | 3 Hours  |
| Meristem culture   |          |
| Callus culture   |          |
| Anther culture   |          |
| Embryo culture   |          |
| Ovary culture  |          |
| Ovule culture  |          |
| Pollen culture   |          |
| 5. <b>Benefits of plant tissue culture</b>                           | 4 Hours  |
| Rapid multiplication of clones                                       |          |
| Genetic uniformity   |          |
| Aseptic condition  |          |
| Controlled environment   |          |
| 6. <b>Outline of procedure and technique – Slide show</b>            | 1 Hours  |
| 7. <b>Practical</b>  | 12 Hours |

## **ASSESSMENT PROCEDURES**

Written examination – 60%

Practical involvement – 40%

### **Grading**

<b>Sl. No</b>	<b>Marks</b>	<b>Grade</b>
<b>1</b>	90-100%	A+
<b>2</b>	75-90%	A
<b>3</b>	60-75%	B+
<b>4</b>	50-60%	B
<b>5</b>	40-50%	C
<b>6</b>	Below 40%	D

## **COURSE OUTCOMES**

- Understand the basic concepts in plant tissue culture
- Discuss the process involved in micropropagation
- Analyse the practical use of tissue culture in life

## **RESOURCE PERSONS**

### **1. Ms. Varsha Maria Babu**

Assistant Professor  
Department of Botany  
Deva Matha College, Kuravilangad

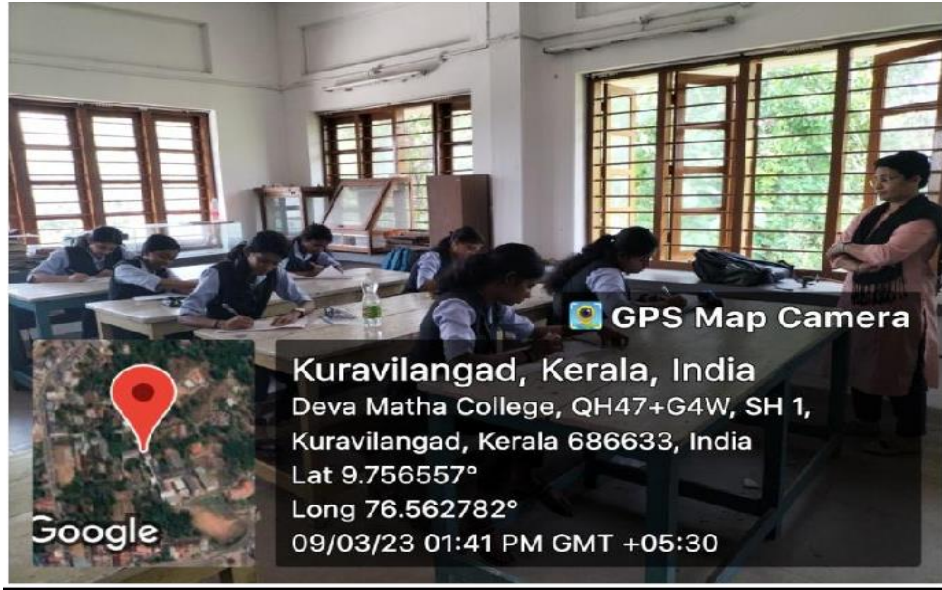
### **2. Dr. Varghese M.C.**

Assistant Professor & HOD  
Department of Botany  
Deva Matha College, Kuravilangad



## PHOTOS OF SESSIONS










## MARKLIST OF THE EXAMINATION

Sl. No.	Class no.	Name of the student	Marks (Out of 25)
1.	21UG301	NAKULDAS K. P.	20
2.	21UG302	YEDUKRISHNAN R.	20
3.	21UG303	ABHIRAMI SHAJI	23
4.	21UG304	ABHIRAMY PRABHULAN	20
5.	21UG305	AISWARYA BINU	25
6.	21UG306	ASWATHI MANOHARAN	20
7.	21UG308	MEENU THANKACHAN	20
8.	21UG310	AFTHAB A	21
9.	21UG311	AJOMON MATHEW	20
10.	21UG312	ALEX VINOD	23
11.	21UG313	ARJUN JOSHY	15
12.	21UG314	JAYAKRISHNA K. A.	16
13.	21UG315	JAYAKRISHNAN. V. J	16
14.	21UG316	N B ROSHIN	16
15.	21UG317	ALAN MARIA	25
16.	21UG319	ARCHANA C A	19
17.	21UG321	ELIZABETH JOHNS	25
18.	21UG322	JOSNA VARGHESE	22
19.	21UG323	LISNA JOSE	22
20.	21UG324	RADHIKA RAJU	25

## STUDENT'S FEEDBACK

Name of the student	Class number	STUDENT'S FEEDBACK			
		1. How will you rate	2. Does the course h	3. Will you prefer if t	4. Give one benefit you got from the course.
Abhirami Shaji		Very good	Yes	Yes	Got an idea about the procedure
Abhiramy Prabhulan		Good	Yes	Yes	Very simple and useful
Aiswarya Bimu		Good	Yes	No	Very simple and useful
Ajomon Mathew		Very good	Yes	No	Got an idea about the procedure, Practical utility is high, Very simple and useful
Alan Maria		Very good	Yes	Yes	Got an idea about the procedure, Practical utility is high, Very simple and useful
Alex Vinod		Excellent	Yes	Yes	Very simple and useful
Archana. C. A					
Aswathi Manoharan		Good	Yes	Yes	Got an idea about the procedure, Practical utility is high, Very simple and useful
Jayakrishna Ka		Good	Yes	Yes	Got an idea about the procedure
Lisna Jose		Excellent	Yes	Yes	Got an idea about the procedure
Elizabeth Johns		Very good	Yes	Yes	Got an idea about the procedure, Practical utility is high, Very simple and useful
Meemu Thankachan		Very good	Yes	Yes	Very simple and useful
Nakuldas K. P.		Very good	Yes	Yes	Very simple and useful
Josna Varghese		Excellent	Yes	No	Got an idea about the procedure
Radhika Raju		Excellent	Yes	Yes	Very simple and useful
Roshin N B		Excellent	Yes	Yes	Got an idea about the procedure
Yedukrishnan. R		Very good	Yes	Yes	
Jayakrishnan V. J.		Good	Yes	Yes	Very simple and useful
Affhab A.		Excellent	Yes	Yes	Practical utility is high
Arjun Joshy		Good	Yes	No	Got an idea about the procedure


## MODEL CERTIFICATE



# DEVA MATHA COLLEGE KURAVILANGAD

Re-Accredited with 'A' Grade (CGPA 3.23) by NAAC in 2017  
Affiliated to Mahatma Gandhi University, Kottayam

Website: [www.devamatha.ac.in](http://www.devamatha.ac.in), E-Mail: [principaldmck@gmail.com](mailto:principaldmck@gmail.com)



## Certificate

This is to certify that **Nakuldas K. P.** has successfully completed the Add-on Programme titled **Plant Tissue Culture (DMCK/BOT/AD 01/2022)** conducted by the Department of Botany, Deva Matha College Kuravilangad during the academic year 2022-23 with 'A' grade.

Certificate No: 001

Kuravilangad  
30-03-2023

*Ms. Varsha Maria Babu*  
Programme Co-ordinator

*Dr. Brincy Mathew*  
General Co-ordinator

*Dr. Sunil C. Mathew*  
Principal

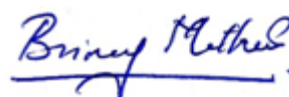
## CONCLUSION

The Add-on Course in **Plant Tissue culture** was provided by the Botany Department of Deva Matha College Kuravilangad for the II DC Botany students of the college. 20 students registered and successfully completed the course. The course was conducted during the months of February and March of 2023. Evaluation process included attendance, test papers and spot tests. Feedbacks were collected through Google forms. Certificates are distributed to the participants eligible as per the mode of evaluation including attendance, examination and spot tests.

Course Co ordinator

Varsha Maria Babu

Department of Botany



Dr. Brincy Mathew  
Add-on Course General Coordinator



Principal  
Deva Matha College  
Kuravilangad - 686 633