

Department of Botany

Reports of Add-on Course “Biotechnology: Plant Tissue Culture”



SRIPAT SINGH COLLEGE, JIAGANJ
CAREER ORIENTED COURSE
Biotechnology: Plant Tissue Culture
One Year Certificate Course
Syllabus
Theory- 100 periods

maybe introduced
AS
26/08/2015
Principal
Sripat Singh College
Jaganj, Munshabad



I. Basic knowledge of Biology

- A. Origin of life
- B. Varieties of Life: Classification five Kingdom.
- C. The Cell:- Prokaryotic and Eukaryotic Cell; Plant and Animal cell; Cell wall; Cell membrane and cell organelles.
- D. Tissue:- Different types of plant Tissues- Simple, Complex; Tissue System- Primary structure and secondary growth. Brief idea of different types of animal tissues
- E. Cell Divisions:- Amitosis, Mitosis, Meiosis. Cell cycle, cell communication and signal transduction.
- F. Reproduction:- Asexual : Apomixis; Other means of Natural vegetative propagation -Artificial propagation- layering, cuttings, grafting, budding ; Micropropagation through tissue culture, advantages and disadvantages.
Sexual Reproduction: Life cycle of a flowering plant, parts of flowers, types of flowers; micro and mega sporogenesis and gametogenesis, pollination method, fertilization and post fertilization changes.
- G. Genetics:- Mendel's work, chromosomal basis of inheritance, Gene interaction- Incomplete dominance, Complementary factor, Dominant epistasis in one direction.
- H. Structure of Chromosome: Morphological structure and chemical nature including nucleosome model.
- I. Variation in Chromosome Number : Euploidy (Polyploidy), Aneuploidy
- J. Plant Growth regulators:- Auxin, gibberellin, cytokinin, etc role in plant growth and development and in tissue culture.

II. Biotechnology

Old and New- General concept; Scope and importance of Biotechnology; Biotechnology in India.

Plant tissue Culture

- A. General concept, Totipotency, Differentiation, dedifferentiation and redifferentiation.
- B. Application of tissue culture in plant science
- C. Different types of plant tissue culture
- D. General Method of Tissue Culture
 - 1) Laboratory requirements
 - 2) Culture medium
 - 3) Sterilization- surface sterilization, autoclave
 - 4) Maintenance of Aseptic condition

To
Dr. Ashim Chakravorty
Course Co-ordinator
Certificate Course in Biotechnology: Plant Tissue Culture
Department of Botany
Sripat Singh College, Jiaganj-742123

Respected Sir,

Date:

It is my pleasure to receive your letter of invitation for taking *them*.....
On... *20/02/2016*.....at 2.00 p.m. for one year certificate course in
Biotechnology: Plant Tissue Culture at your Department.

I have full consent to take the class as scheduled for me on that day and I shall deliver my lecture on the topics of the syllabus as allotted for me and obliged.

With Regards,

Yours truly,

Srikandal.
17.1.2016.

- A. General concept of Tissue culture.
- B. Application
- C. Types.
- D. Gen. Methods.
- E. Diff. Types. - organ culture
Callus culture.



SRIPAT SINGH COLLEGE

DEPARTMENT OF BOTANY

P.O. Jiaganj, Dist. Murshidabad, West Bengal, PIN 742 123

Phone:03483-255351, Fax: 03483-256961

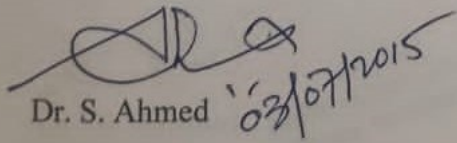
Email: sscollege2009@gmail.com, Web : www.ss-college.org

Memo No.,

Date: 03.07.2015

Notice

It is hereby notified that the Department of Botany, Sripat Singh College is going to start a **one-year-certificate course on "Biotechnology and Plant Tissue Culture"** as a **carrier orientated course** for the session 2015-16 for the students of both UG Honours and Pass of subjects' viz., Botany, Biotechnology and Molecular Biology, Zoology, Chemistry and Environmental Science. The interested students may apply within the stipulated date submitting the filled registration form with requisite fees of Rs. 200/- to the office through the Head of the department of Botany.


Dr. S. Ahmed 03/07/2015

(Principal)

Principal
Sripat Singh College
Jiaganj, Murshidabad



SRIPAT SINGH COLLEGE

Department of Botany



P.O. Jiaganj, Dist. Murshidabad, West Bengal, PIN 742 123

Phone:03483-255351, Fax: 03483-256961

Email: sscollege2009@gmail.com, Web : www.sripatsinghcollege.org

Memo No.

Date:03.09.2016

Notice

All the students empanelled for the **One-year certificate course in Biotechnology: Plant Tissue Culture** are hereby informed that the course class is to restart from 03.09.2015 and are directed to collect the routine for the respective class from the Co-ordinator of the course.

Co-ordinator



Principal

(Dr. Ashim Chakravorty)

Certificate Course in Biotechnology: Plant Tissue Culture

Assist. Professor and Head, Dept. of Botany

(Dr. Ashim Chakravorty)
Course Co-ordinator
Biotechnology & Plant Tissue Culture
Deptt. of Botany, Sripat Singh College
Jiaganj, Murshidabad

Name of the Teachers with topic, signature & date on which classes were taken (Both Theory & Practical) for the session - 2015-16

classmate
Date _____
Page _____

Date	Lecture delivered/Class taken by Teachers	Mode	No. of student present	Topic with signature
08/08/15 (August)	Mr. Krishnendu Singharay (Dept. of Botany)	Th-1 Pr-1	10 12	Chromosomes PDA media 08/15
21/11/15 (Nov)	Mr. K. Singharay (Dept. of Botany)	Pr-1	10	Instruments use 21/11/15
	Mr. Pribhash Bhattaraya (Dept. of Biotechnology)	Pr-1	15	2% w/v concept of plant tissue culture 03/11/15 21/11/15
28/11/15	Mr. Md. Raihan Uddin (Dept. of Biotechnology)	Th-1 Prac-1	7	Mr. Raihan Uddin 28/11/2015 Topic:- Introductory tissue culture Topic:- Dibly instruments & decontamination with sterilization concept. 21/11/16
05/12/15	Ms. Sayantani Basu (Dept. of Biotechnology)	Th (1) Practical. 1	10	15/12/15 Introduction 05/12/15
12/12/15	Mr. Shyamsundar Sett		10	05/12/15

SRIPAT SINGH COLLEGE

Department of Botany



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Email: sscollege2009@gmail.com, Web : www.sripatsinghcollege.org

No.

Date: 08.04.2016

Notice

It is to inform you that Dept. of Botany, Sripat Singh College is going to arrange an educational tour cum industry visit (Academic) to Vivekananda Institute of Biotechnology, Sri Ramkrishna Ashram, Nimpith, 24 Parganas (South) according to the syllabus of Certificate Course from 12th to 13th April, 2016, for the students of One-Year certificate course in Biotechnology: Plant Tissue Culture, affiliated to University of Kalyani.

The students are directed to bring consent letter from their respective guardians and requisite fees within 09.04.2016 for the enrolment and to make the tour all success

(Dr. Ashim Chakravorty)

Co ordinator

One-Year Certificate Course in
Biotechnology: Plant Tissue Culture

Head, Dept. of Botany
Sripat Singh College



(Dr. S. Ahmed)

Principal

Principal
SRIPAT SINGH COLLEGE
Jiaganj, Murshidabad

SRIPAT SINGH COLLEGE



P.O. Jiaganj, Dist. Murshidabad, West Bengal, PIN 742 123
Phone: 03483-255351, Fax: 03483-256961
ail: sscollege2009@gmail.com, Web : www.sripatsinghcollege.org

Memo No. Misc of 4 of 16-17

Date: 08.04.2016

To
The Director
Vivekananda Institute of Biotechnology
Sri Ramkrishna Ashram
Nimpith
24 Parganas (S)

Sub: **Prayer for permission of Laboratory Visit of Tissue Culture**

Sir,

With due respect, I would like to inform you that Department of Botany of this College is pursuing a certificate course on **Biotechnology : Plant Tissue culture** and Dr. Ashim Chakravorty, an Assistant Professor (H.O.D.) and Coordinator of this course has taken an initiative to visit your Tissue Culture Laboratory with the enrolled students for their interaction, research, academic and educational experience as per discussion with Mr. A.K. Mukherjee of your Institute on 12.04.2016.

I look forward to receiving your kind cooperation.

Thanking You,

Yours Truly,

(Dr. S. Ahmed)

Principal

Sripat Singh College

Principal
SRIPAT SINGH COLLEGE
Jiaganj, Murshidabad



Educational tour - 12.04.16
Educational tour 12.04.16

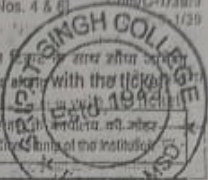
पूर्व रेलवे / EASTERN RAILWAY

(नियम 101, क्रम संख्या 4 और 6 देखें / See Rule 101, Serial Nos. 4 & 6)

काम / सी-1/39
काम/सी/39

विद्यार्थी-पत्र STUDENTS FOIL

यत्र के दौरान टिकट धारक अपने पत्र देना चाहेगा तथा यात्रा के समापन के स्टेशन पर
To be retained by the holder during the journey and to be surrendered at the destination



वर्ग / Class: A

क्रमांक Sl. No	विद्यार्थी के नाम/Name of students	आयु Age	लिंग Sex
1	PRONITA BHASKAR	20	F
2	DYOTI MONDALASKAR	18	F
3	AYESHA KHANAL	18	F
4	SANGITA SAHAMAN	18	F
5	MITANURA RAHAMAN	21	F
6	KEKA MAHULICKA RAHAMAN	19	F
7	SWETLANA PERVIN	18	F
8	PALLABI LAROY PERVIN	18	F
9	BIBHASA BHATTACHARYA	37	M
10	DR. ASHIM CHAKRAVORTY		

Ashim Chakravorty

विद्यार्थी (जी) दल के नेता (जी) के हस्ताक्षर/Signature(s) of Student/Leader(s) of Party

यदि विद्यार्थी एक दल के लिए है तो दल के नेता के अतिरिक्त दल के अन्य दो सदस्यों के पत्र पर भी कबलिने जर्नी / When the concession is in favour of party, besides the signature of the leader of the party, signatures of two other members of the party should be obtained.

दिनांक / Date: 12/04/16 स्टेशन से / Station From: जगन्मोहन स्टेशन / Station To: Patna

स्थान / Place: Patna कक्षा / Class: A

टी टिकट / टिकटों की संख्या / Issued tickets: 3558, 3559, 3560, 3561, 3562, 3563, 3564, 3565, 3566, 3567, 3568, 3569, 3570, 3571, 3572, 3573, 3574, 3575, 3576, 3577, 3578, 3579, 3580, 3581, 3582, 3583, 3584, 3585, 3586, 3587, 3588, 3589, 3590, 3591, 3592, 3593, 3594, 3595, 3596, 3597, 3598, 3599, 3600

दिनांक / Date: 12/04/16

स्टेशन मास्टर की हस्ताक्षर एवं मुहर / Station Master Signature & Stamp

नियम 101 के अंतर्गत जारी है / Entitles not required should be retained

विद्यार्थी टिकटों की दुरुपयोग / Misuse of concession ticket or allowing another person to use the tickets liable to prosecution or other penal action.

Station Superintendent
जगन्मोहन, पूर्व रेलवे / Jagan Mohan, E. Ry.

[विद्यार्थी पीठे देखें / See instruction on the reverse]

39589162

FARE FARE A
No. 450/- JOURNEY 9162

व्यय: 407 PCT 109F

जगन्मोहन
JAGANMOHAN To JAYANTPUR MAHIN 12/04/2016

व्यय: 450/-

12/04/2016

Station Superintendent
जगन्मोहन, पूर्व रेलवे / Jagan Mohan, E. Ry.

VIVEKANANDA INSTITUTE OF BIOTECHNOLOGY

(Under Core Support Programme of DST, Govt. of India)

SRI RAMKRISHNA ASHRAM

Nimpith Ashram, South 24 Parganas, West Bengal, Pin 743 338

BILL

VIB/TRC/16-17/03

Date 13.04.2016

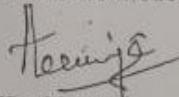
To,
Sripat Singh Collage
Mursheedabad

Date	PARTICULARS	QTY	AMOUNT (Rs.)
12.04.2016	Food Charges	20 head	3500.00
	Dormitory bed @ Rs. 100.00	16head	1600.00
to	Double bed 2 non ac room @ Rs. 400- rs		800.00
13.04.2016			
Total Amount			5900.00

(Five thousand Nine hundred only)

E & O.E

For VIVEKANANDA INSTITUTE OF BIOTECHNOLOGY


Office Manager

VIVEKANANDA INSTITUTE OF BIOTECHNOLOGY
SRI RAMKRISHNA ASHRAM
NIMPITH ASHRAM, SOUTH 24 PARGANAS
WEST BENGAL, PIN 743 338