



## **ST. ANN'S COLLEGE FOR WOMEN**

(Affiliated to Acharya Nagarjuna University,  
Recognized Under Section 2(f) of UGC Act 1956-New Delhi)  
**Amaravathi Road, Gorantla, Guntur – 522034 (A.P)**

Email: [st\\_anns\\_coll@yahoo.co.in](mailto:st_anns_coll@yahoo.co.in) Website: [www.stannscollegeforwomen.org](http://www.stannscollegeforwomen.org)

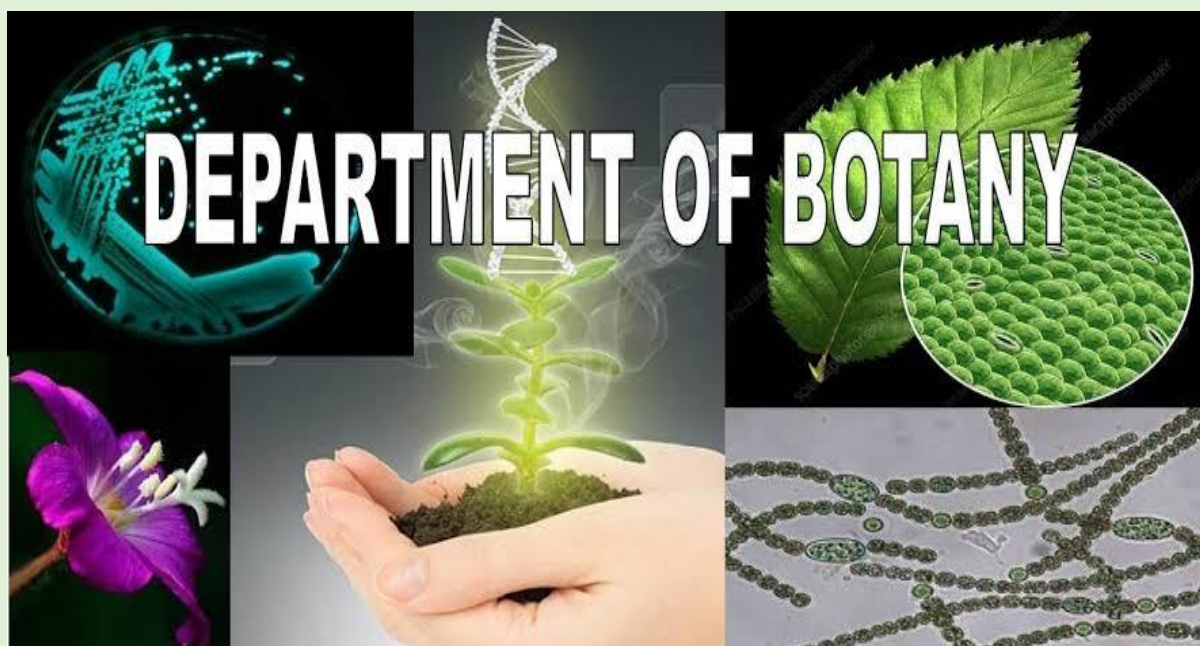
**Criterion: II**

**Metric –2.3.1**



### **2.3.1 STUDENT CENTRIC METHODS**

**Department of Botany**



## Student Centric Methods

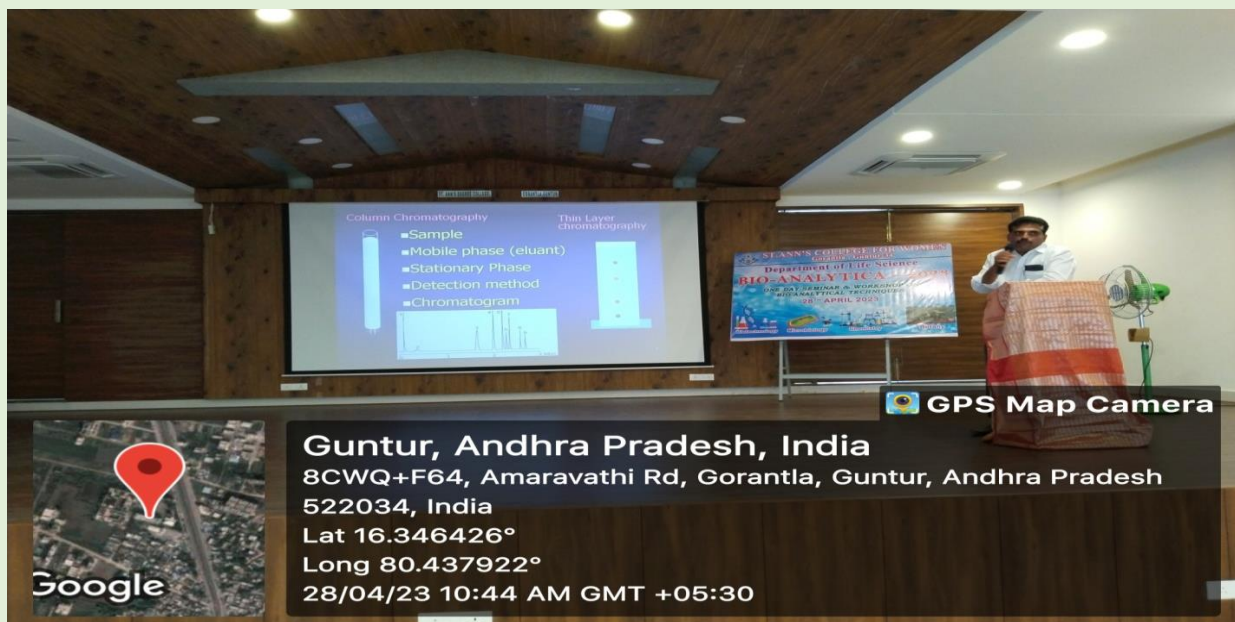
Experiential Learning	Participative Learning	Problem Solving
<ul style="list-style-type: none"> <li>- Work shop</li> <li>- Lab sessions</li> <li>- Project &amp; Internship</li> <li>- Group Discussions</li> <li>- Community services</li> <li>- Poster presentations</li> </ul>	<ul style="list-style-type: none"> <li>- Practical Demonstration</li> <li>- Field Trips</li> <li>- Medicinal plant Exhibitions</li> <li>- Student seminars</li> <li>- Competitions</li> <li>- Plantations</li> </ul>	<ul style="list-style-type: none"> <li>- Campus recruitment training programmes</li> <li>- Assignments</li> <li>- Question bank preparation</li> </ul>



# EXPERIENTIAL LEARNING

## WORKSHOP

The Department of Life-sciences had organized **BIO-ANALYTICA-2023** one day seminar & workshop on Bio-Analytical Techniques on 28-04-2023 for all the B.B.C and M.B.C STUDENTS OF I,II and III Year students. The chairperson of the programme was Rev. Dr. Sr .Fathima Rani P Principal & correspondent of St. Ann's college for women and the chief Guest of the programme was Dr.M.Guravaiah HOD Department of Biotechnology & Microbiology College.













# PROJECTS AND INTERNSHIPS

## PROGRAM BOOK FOR SHORT TERM INTERNSHIP

Submitted in accordance with the requirement for the Degree of  
BACHELOR OF SCIENCE



Submitted by  
KESAM.SOWJANYA

Reg. No: OAM2022101578117

Hall Ticket No: Y213158010

PERIOD OF INTERNSHIP : FROM : MAY TO : JULY

NAME OF THE ORGANIZATION : SALESFORCE DEVELOPER

Under the Guidance of  
Mrs. K. Vidyadhari.

DEPARTMENT OF BOTANY

ST. ANN'S COLLEGE FOR WOMEN

(AFFILIATED TO ACHARYA NAGARJUNA UNIVERSITY ) GORANTLA, GUNTUR-34.

ANDHRA PRADESH.

2022 – 2023.

ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION  
(A STATUTORY BODY OF GOVERNMENT OF ANDHRAPRADESH)

## Official Certification

This is to certify that K. Sowjanya (Name of the student) Reg. No. Y213188010 has completed his/her Internship in Online smart intern (Name of the Intern Organization) on Salience developer (Title of the Internship) under my supervision as a part of partial fulfillment of the requirement for the Degree of Biotechnology in the Department of St. Ann's College for Women (Name of the College).

This is accepted for evaluation.

K. Sowjanya  
(Signatory with Date and Seal)

### Endorsements

Faculty Guide

K. Vidyashree

K. Vidyashree  
Head of the Department  
Head of Dept. of Botany  
St. Ann's College for Women  
GORANTLA, GUNTUR-522034.

Principal

[Signature]  
PRINCIPAL  
St. Ann's College for Women  
GORANTLA, GUNTUR-522 034



INTERNAL ASSESSMENT STATEMENT

Name Of the Student: *Kesam. Sowjanya*  
Programme of Study: *Salesforce Developer*  
Year of Study: *2022-2023*  
Group: *BIO technology*  
Register No/H.T. No: *V213158010*  
Name of the College: *st. Ann's college for women*  
University: *Acharya Nagarjuna University.*

Sl.No	Evaluation Criterion	Maximum Marks	Marks Awarded
1.	Activity Log	25	<i>22</i>
2.	Internship Evaluation	50	<i>49</i>
3.	Oral Presentation	25	<i>23</i>
	GRAND TOTAL	100	<i>94</i>

Date:

*K. Vidyadhar*  
Signature of the Faculty Guide

Certified by

Date:

Seal:

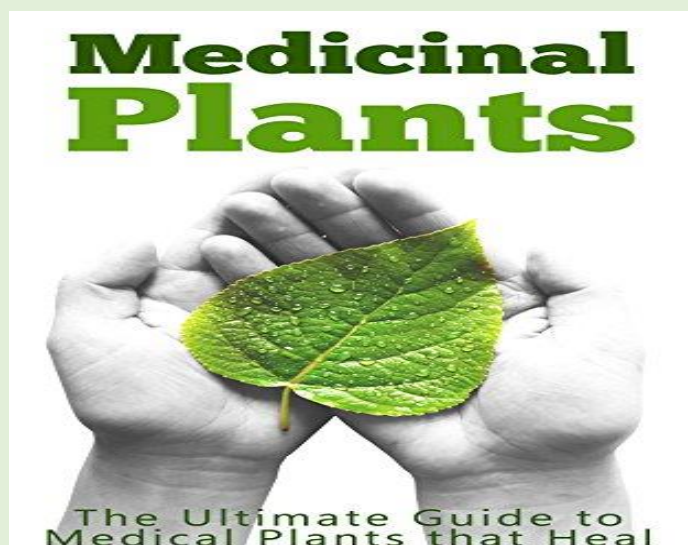
*28/8/2023*

*K. Vidyadhar*  
Signature of the Head of the Department/Principal

*K. Vidyadhar*  
PRINCIPAL  
St. Ann's College for Women  
GORANTLA, GUNTUR-522 034

Page No:

## Participative Learning



### Medicinal plant exhibition

The department of Botany, ST. ANN'S college for women conducted Medicinal plants exhibition at our college premises near to ST.ANN'S BOTANICA

The Exhibition has the intension of creating awareness to the students about the utilization and importance of medicinal plants growing in this biosphere and elsewhere.

The medicinal plant exhibition was inaugurated by principal and correspondent of our college Rev. Dr. Sr Fatima Rani. P. In her presidential address sister has focused on the importance of medicinal pants and the conservation and sustainable use of medicinal plants. The main idea behind the exhibition was the vision of our principal sister and faculty of the Department to conserve nature and develop a complete knowledge about nature. The students collected over 20 Varieties of plants which are of medicinal importance

#### Aim

- Promotion of cultivation and conservation of Medicinal plants
- To create optimum awareness and interest amongst the students about Medicinal plants
- To conserve the biodiversity of Medicinal plants
- TO develop awareness for utilization of herbal medicines









 **GPS Map Camera**



**Guntur, Andhra Pradesh, India**  
10-109/2, Amaravathi Rd, Gorantla, Guntur, Andhra Pradesh  
522034, India  
Lat 16.346961°  
Long 80.437777°  
19/07/23 10:23 AM GMT +05:30





**GPS Map Camera**  
Guntur, Andhra Pradesh, India  
10-109/2, Amaravathi Rd, Gorantla, Guntur, Andhra Pradesh 522034, India  
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Long 80.437761°  
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**GPS Map Camera**  
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# LAB SESSIONS



# PRACTICAL DEMONSTRATION













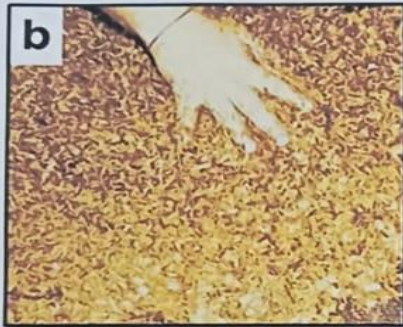
**a**  
Stubble burning of  
Paddy/Wheat



**c**  
Culture



**c**  
Wheat grain



**b**  
Paddy/Wheat  
straw



**d**  
Mushroom  
Spawn



**e**  
Mushroom cultivation  
/ bagging



**f**  
Growing Oyster mushroom  
on paddy/wheat straw

**g** Use in green synthesis approach for  
synthesis of Au-Pt Nanoparticles



# FIELD TRIPS *to go*















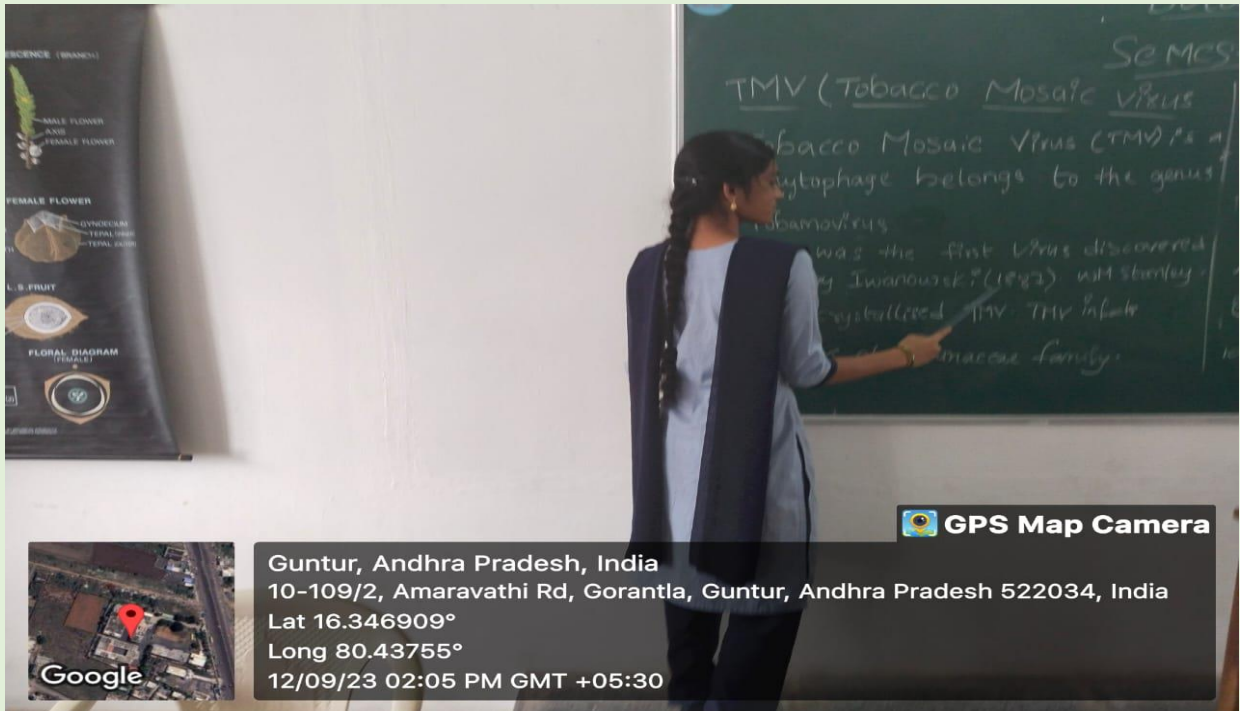






# SEMINARS









The department of Botany & Eco club committee togetherly conducted plantation programme in botanical garden **ST.ANN'S BOTANICA** . The Eco club committee members, botany faculty & students of life sciences had motivated all other B.sc and B.com students to participate in the plantation programme.

On the plantation day Life Sciences lecturers & students of botany department invited our principal Rev.Dr. Sr.Fatima rani.P and other staff of UG&PG to plant the Saplings.

Principal Sister inaugurated the programme and she offered prayers and blessed the students and congratulated the lecturers of botany department.

We are thankful to our beloved principal sister for encouraging and giving her support.

#### Uses of plantation:

- Plantation helps to reduce global warming, green house effect by reducing  $\text{CO}_2\%$
- Plantation reduces pollution.
- Plantation makes the environment cool through transpiration where transpiration increases the moisture content in the atmosphere.
- Plantation increases the beauty of nature and enhances the aesthetic value.
- Reduces soil erosion













The department of Botany & Eco club committee togetherly conducted plantation programme in botanical garden and in our college premises. The Eco club committee members, botany faculty & students of life sciences had motivated all other B.sc and B.com students to participate in the plantation programme.

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- Plantation reduces pollution.
- Plantation makes the environment cool through transpiration where transpiration increases the moisture content in the atmosphere.
- Plantation increases the beauty of nature and enhances the aesthetic value.
- It increases the  $\text{O}_2\%$  by photosynthesis.
- It also used for Ozone layer formation.













### **“Save the Biosphere by saving Plants.”**

In this academic year too, the department of Botany on 11<sup>th</sup> August 2018 nearly 120 saplings of both flowering and non- flowering types were planted and the program was inaugurated by the principal Rev. Dr. Sr. Fatima Rani. P by planting Rose plants on either sides of Statue of Mother Fathima Matha. Our Principal appreciated the students and suggested the department to strive for the development of Botanical garden with the impregnation of botanical name of all the plants belonging to different species or families and also installation of Bird Sanctuary and Aquarium in the College premises.











# MINI PROJECTS

ST.ANN'S COLLEGE FOR WOMEN

GORANTLA, GUNTUR-35

ANDHRA PRADESH



DEPARTMENT OF BOTANY

TOPIC: MERISTEM CULTURE

SUBMITTED BY

B.SNEHA LATHA

REGD NO:Y193158034

Semester-VI

UNDER THE GUIDANCE OF

K.VIDHYADHARI

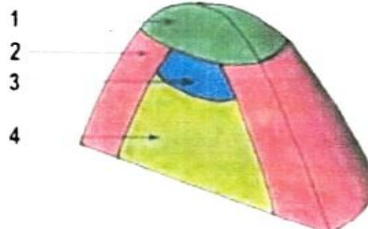
(M.SC.,M.Ed)

## TYPES OF MERISTEMS

➤ On the basis of their position in the plant body, the meristems may be classified into three groups – Apical, Intercalary and lateral meristems.

**1. Apical meristems:** - are present at the growing points of stem and roots. These organs increase in length due to the activity of cells of apical meristem. Generally it consists of many cells, but in pteridophytes only one cell forms the apical meristem. The shoot apex generally shows tunica – corpus organization. In the case of root apex three distinct histones are found. They are dermatogen, periblem and plerome.

Organization of an apical meristem (growing tip)  
1 - Central zone  
2 - Peripheral zone  
3 - Medullary (i.e. central) meristem  
4 - Medullary tissue



There are two types of Apical meristem tissue:

**1. Shoot apical meristem (SAM)**

**2. Root apical meristem (RAM)**



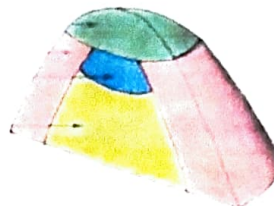
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Organization of an apical meristem (growing tip)

1 - Central zone	1
2 - Peripheral zone	2
3 - Medullary (i.e. central) meristem	3
4 - Medullary tissue	4



There are two types of Apical meristem tissue:

1. Shoot apical meristem (SAM)
2. Root apical meristem (RAM)

## ORGAN CULTURE:

The *Organ culture* refers to the *invitro Culture* and maintenance of an excised organ primordia or whole or part of an Organ in a way that may allow *differentiation* and *Preservation* of the *Architecture* and/or *Function*.



- Organ culture is a development from tissue culture methods of research, the Organ culture is able to accurately model functions of an Organ in various states and conditions by the use of the actual invitro Organ itself.
- Here, any Organ plant can be used as an ex-plant for the culture process (shoot, root, leaf, and flower).



*DoB P*  
PRINCIPAL  
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