

**TG.T.W.R.D.C (BOYS) MANUGURU**



**BOTANY**

**DEPARTMENT PROFILE**

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## HISTORY OF THE COLLEGE

Our college has been one among 22 Tribal Welfare Residential Degree colleges which have been established in the State of Telangana under the aegis of **TTWREIS**, Tribal Welfare, Gurukulam as part of the **KG to PG** free Education policy of the Government of Telangana during the academic year 2016/17. Tribal welfares were launched to cater the higher educational needs of the students of under privileged and unprivileged sections of the society and to enhance their confidence levels acquiring the highest level of academic excellence coupled with excellent communication skills and the other interpersonal skills to transform themselves into the best citizens of the Nation.

The TTWREIS Tribal Welfare Gurukulam has been originated from the APTWREIS which was established in the year 1984. The Society has started its great journey with the herculean task of transforming 270 Residential schools into the centers of excellence in not only academics but also its co-curricular and extra-curricular fronts. Its journey has been continued up to the year 1998. Thereafter it has been bifurcated in to two facilitating the way for the creation of Tribal Welfare from Social Welfare by allocating 65 Residential School. Thereafter in the year 1999 the APTWREIS declared as autonomous society to guide its institutions to accomplish national level educational standards.

## DEPARTMENT HISTORY:

Department of Botany was established in the year 2017-2018 with the course BSc(BZC). This college works under the knowledge among the students in life science courses. Botany department provides the information related to Herbarium, Laboratory works and research related works.

## VISION & MISSION

The Department has established its own vision and mission in alignment with the college's vision and mission.

### VISION:

Imparting knowledge on plant sciences to the young students of Tribal community

### MISSION:

- To encourage the students in Ethano Botany.
- To develop the research attitude among the students
- To create awareness among the students on importance of plants on Planet.

## DEPARTMENT OF BOTANY:

Department of botany was established in 2017-18. The department offers an undergraduate program Bsc(BZC) which is in affiliation with Kakatiya university, Warangal. Students are selected through eligibility test conducted by Gurukulam(TGUGCET). The department has gained recognition for its teaching in diverse fields of botany since its establishment. Since its inception, this department has maintained a well-rounded curriculum that includes both theoretical and practical components, along with a highly qualified faculty.

The department has introduced the choice-based credit system for evaluating B.Sc students starting from the academic year 2017-18, providing a more flexible approach to course structure and assessment. The Department of Botany collaborates with undergraduate institutions in tribal and social communities within the state. The primary objective of the Botany department is to deliver high-quality education and practical experience at the undergraduate level.

## HIGHLIGHTS OF THE DEPARTMENT:

- The department has one regular staff and one part-time faculty with five years' experience.
- Department uses various student-centric methods such as study projects, assignments, student seminars, ppt presentation, quiz, flipped classes and group discussions.
- The department is tasked with organizing field trips that are specifically relevant to the subject being studied.
- Department has a departmental library with reference books, question banks, study materials, previous question papers etc.,
- The department has one well-equipped laboratory to conduct practical equipment like autoclave, hot air oven, compound microscopes, dissection microscopes and herbarium cabinet etc...
- The department has bio-visual charts and models.

## SWOC ANALYSIS

### STRENGTHS

- ❖ Dedicated, well experienced faculty.
- ❖ Adequate number of bio visual charts
- ❖ Faculty engaged in extension activities

### WEAKNESS

- ❖ No PG Program in Botany
- ❖ Infrastructure
- ❖ Poor communication skills among the students

### OPPURTUNITIES

- ❖ Students are encouraged towards higher education.
- ❖ To offer certificate courses related to medicinal botany and bouquet preparation.
- ❖ To start PG program in Botany

### CHALLENGES

- ❖ To inculcate a sense of responsibility towards planting trees among the young tribal community.
- ❖ To develop interest in research among the students
- ❖ To increase students progression towards higher education.

## FACULTY PROFILE

### TEACHING

<p>Name: Ch. Aparna</p> <p>Designation: Lecturer in Botany</p> <p>Qualification: M.Sc B.Ed. SET</p> <p>Mobile No. : 9014229712</p> <p>Experience: 6 years</p>	
<p>Name : M.Dharani</p> <p>Designation: Lecturer in Botany</p> <p>Qualification: M.Sc</p> <p>Mobile No : 9959226930</p>	
<h3>NON-TEACHING</h3>	
<p>Name: A. JAGAPATHI</p> <p>Designation: LAB ASSISTANT</p> <p>Qualification: B.Sc, D.L.Ed</p> <p>Mobile No. : 8106234867</p>	

CRITERIA-I:

CURRICULAR ASPECTS

## CURRICULAR ASPECTS

Our educational program is based on the syllabus prescribed by Kakatiya University, Warangal. The university has incorporated the Choice based Credit System (CBCS) into the curriculum since the academic year 2016-17. As per the university's academic calendar, each semester comprises 15 weeks of instructional period, with a total of 60 to 90 instruction hours, including 30 hours dedicated to practical classes. Starting from the academic year 2019-20, a revised CBCS syllabus has been implemented, and we adhere to it diligently.

The departmental semester plan is prepared by the department at the start of both even and odd semesters, while the faculty members are responsible for creating individual semester plans. In addition to the standard curriculum, the Department of Botany organizes awareness programs on the significance of environmental protection. To contribute to the green initiative and enhance the campus's beauty, the Department of Botany actively participates in planting saplings in collaboration with NSS & Ecoclub.



## SYLLABUS

**Paper-I:** Microbial Diversity and Lower plants → Archaeobacteria, Actinomycetes, Cyanobacteria & Lichens. → Bacteria & Virus → Algae & Fungi → Bryophytes & Pteridophytes

**Paper-II:** Gymnosperms, Taxonomy of Angiosperms & Ecology → Gymnosperms → Introduction of plant taxonomy → Systematic study & Economic importance of families. → Ecology

**Paper-III:** Plant Anatomy & Embryology → Meristems, Tissues & → Mendel's, Linkage, Genetic maps → Mutations, Gene organization. → Photosynthesis & Respiration

**Paper-IV:** Cell Biology, Plant Physiology → Plant cell envelopes, Chromosomes, Cell division → Biotechnology. → Gene Libraries, Transgenic plants.

**Paper-DSE-IA:** Biodiversity and Conservation → Plant diversity & Scope, Values of Biodiversity. → Loss of Biodiversity → Conservation of Biodiversity → Role of plants in relation to Human welfare.

**Paper-DSE-IIB:** Tissue Culture and Biotechnology → Tissue culture, Organ culture, Callus culture. → Applications of Tissue culture. e systems & Leaf anatomy. → Stem and root anatomy, Anomalous secondary growth of the stem, wood structure. → Embryology → Palynology

## Papers and Credits

S.NO	PAPER	TITLE OF THE PAPER	THEORY CREDITS	PRACTICAL CREDITS	TOTAL CREDITS
1	I	MICROBIAL BIODIVERSITY AND LOWER PLANTS	4	1	5
2	II	GYMNOSPERMS, PLANT TAXONOMY AND ECOLOGY	4	1	5
3	III	PLANT ANATOMY AND EMBRYOLOGY	4	1	5
4	IV	CELL BIOLOGY AND PLANT PHYSIOLOGY	4	1	5
5	DSE-1A(SEM-V)	BIODIVERSITY AND CONSERVATION	4	1	5
6	DSE -IIB	TISSUE CULTURE AND PLANT BIOTECHNOLOGY.	4	1	5

## Course Outcomes

### **Paper-I Microbial diversity, Algae, Fungi, Bryophyta & Pteridophyta.**

**CO1** to develop interest in the concepts related to bacteria, viruses, algae, fungi, Bryophyta and Pteridophyta

**CO2** To learn details about the general characteristics of bacteria and their cell, nutrition reproduction/ recombination.

**CO3** to learn details on general structure, replication of viruses and plant diseases caused by viruses.

**CO4** Develop critical understanding of plant diseases caused by bacteria, viruses, mycoplasma, actinomycetes and fungi and their remediation methods.

**CO5** Develop critical understanding on morphology, anatomy, life cycle and reproduction of Bryophytes and Pteridophytes.

**CO6** Demonstrate the practical methods related to the relevant topics.

### **Paper-II: Gymnosperms, Plant Taxonomy & Ecology**

**CO1** Develop critical understanding on morphology, anatomy, reproduction, and economic importance of Gymnosperms.

**CO2** The students develop knowledge on nomenclature, identification, and classification.

**CO3** students can develop interest in plants identification in local areas.

**CO4** Students can be able to know the Technique of making herbarium and able to make herbarium sheets by their own

**CO5** students gain knowledge on basic concepts of plant ecology, different types of ecosystems and their structures.

**CO6** Understanding the concepts of biotic and abiotic components.

**CO7** understanding the concepts of different plant communities and their succession.

### **Paper-III: Plant Anatomy and Embryology.**

**CO1** students will learn the fundamental concepts of plant anatomy.

**CO2** Analyze and recognize the different organs of plant and secondary growth.

**CO3** Evaluate the structural organization of flower and the process of pollination, fertilization & Development of embryo.

### **Paper-IV: Cell Biology & Genetics, Plant physiology**

**CO1** Understand the importance, evolution, and diversity of cells.

**CO2** Able to describe the organization, structure and functions of cell wall, plasma membrane and different types of cell organelles

**CO3** Understand the sequential events that occur during mitosis and meiosis.

**CO4** Understand Water relation of plants with respect to various physiological processes like diffusion, osmosis, imbibition, and transpiration etc.

**CO5** Explain chemical properties and deficiency symptoms of micro and macro nutrients in plants.

**CO6** Understand the mechanism of various metabolic processes in plants like photosynthesis and respiration.

**CO7** Explain the significance of Nitrogen metabolism.

**CO8** Acquire basic knowledge about growth hormones in plant development.

### **DSE-IA: Biodiversity & Conservation**

**CO1** Develop understanding of the concept and scope of Biodiversity and types of biodiversity.

**CO2** understands the concept of agro biodiversity and its importance in conserving wild and cultivated species.

**CO3** Utilize various strategies for the Conservation of biodiversity.

**CO5** students can understand the importance of forestry and the role of plants in relation to human welfare.

### **DSE-IIB: Tissue culture & Biotechnology**

**CO1** students can be able to understand the procedure of tissue culture, micropropagation, and practical implementation.

**CO2** understands the procedures of different organ cultures to produce several plants.

**CO3** Examine gene cloning and evaluate different methods of gene transfer.

**CO4** understands the procedure of r-DNA technology and related research methodologies.

## FACULTY WISE WORKLOAD

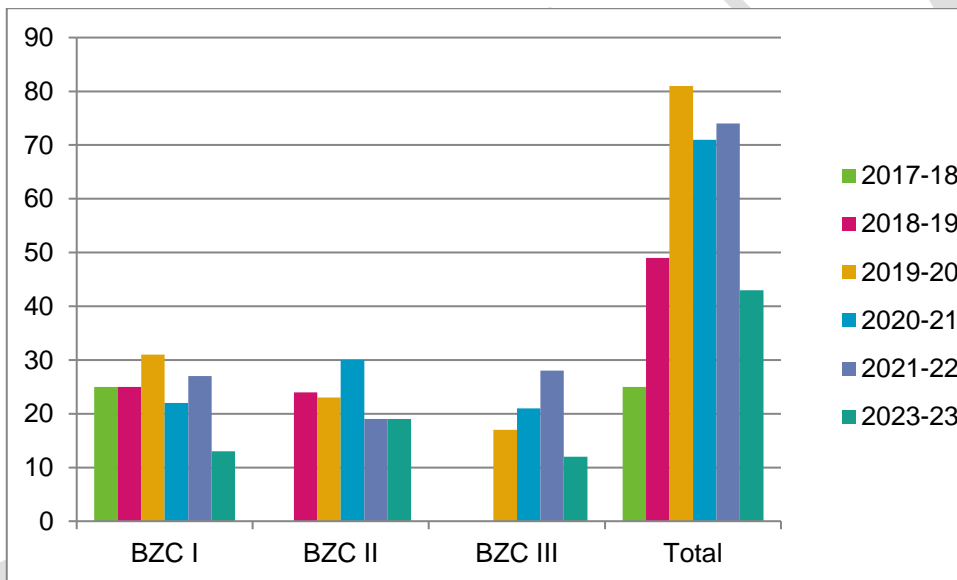
S.NO	Name of the Faculty	Theory (Hours)	Practical (Hours)	Total
1	CH. Aparna	8 per Week	6 per Week	14
2	M.Dharani	4 per week	3 per Week	7
Grand Total				21 per week

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**Criteria-II:**  
**Teaching, Learning and Evaluation**

## Student Enrollment

Class	2017-18	2018-19	2019-20	2020-21	2021-22	2023-23
<b>BZC I</b>	25	25	31	22	27	13
<b>BZC II</b>	-	24	23	30	19	19
<b>BZC III</b>	-	-	17	21	28	12
<b>Total</b>	<b>25</b>	<b>49</b>	<b>81</b>	<b>71</b>	<b>74</b>	<b>43</b>

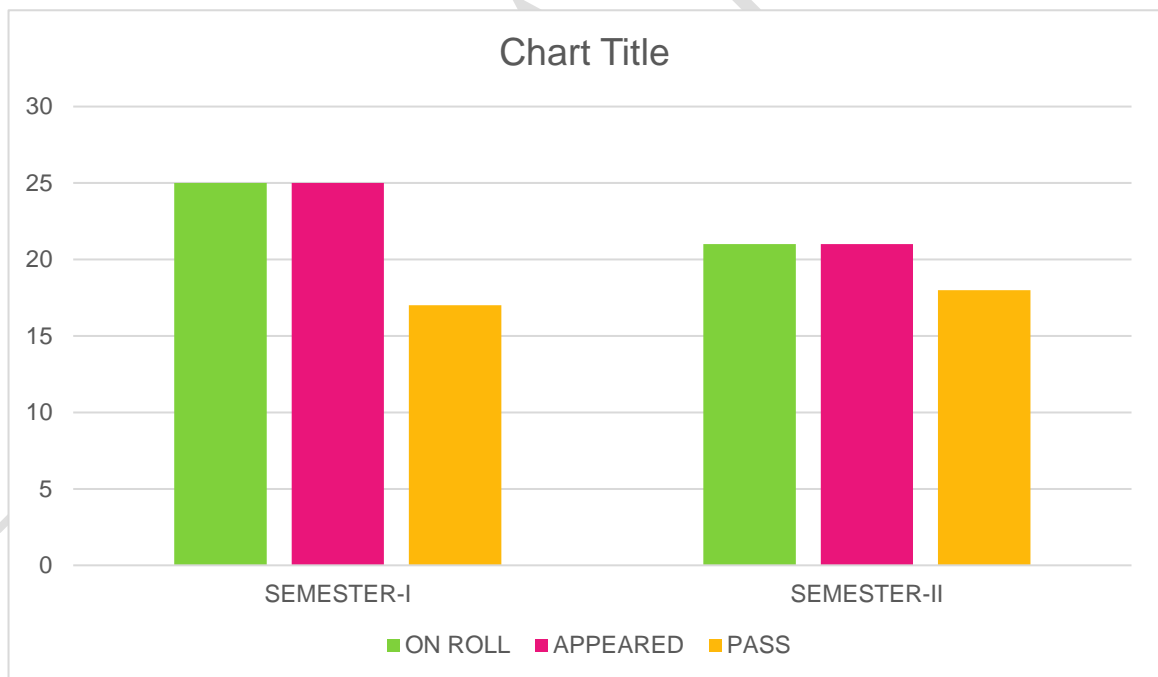


## RESULT ANALYSIS

### SEMSTER/PAPER WISE RESULT FROM 2017-23

SEMESTER/PAPER WISE PASS % (2017-18 to 2022- 23)

TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE (B) MANUGURU						
DEPARTMENT OF BOTANY						
RESULT ANALYSIS FOR THE AY - 2017 - 2018						
SEM	ON ROLL	APPEARED	ABSENT	PASS	FAILED	PASS %
SEMESTER-I	25	25	0	17	8	68
SEMESTER-II	21	21	0	18	3	86





**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE (B)  
MANUGURU**

**DEPARTMENT OF BOTANY**

**RESULT ANALYSIS FOR THE AY - 2018 - 2019**

SEM	ON ROLL	APPEARED	ABSENT	PASS	FAILED	PASS %
SEMESTER-I	25	25	0	23	22	92
SEMESTER-II	25	24	1	24	0	100
SEMESTER-III	18	17	1	17	0	100
SEMESTER-IV	17	17	0	15	2	88

Chart Title



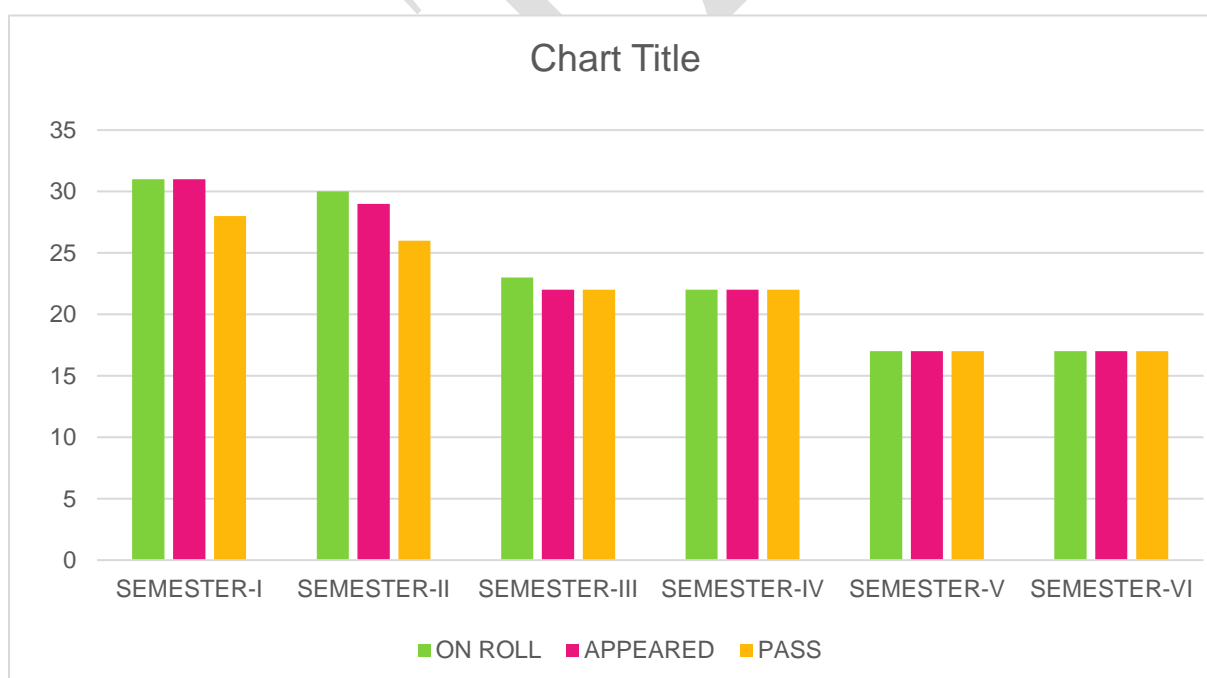
**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE (B)  
MANUGURU**

**DEPARTMENT OF BOTANY**

**RESULT ANALYSIS FOR THE AY - 2019 - 2020**

SEM	ON ROLL	APPEARED	ABSENT	PASS	FAILED	PASS %
SEMESTER-I	31	31	1	28	3	90
SEMESTER-II	30	29	1	26	3	89
SEMESTER-III	23	22	1	22	0	100
SEMESTER-IV	22	22	0	22	0	100
SEMESTER-V	17	17	0	17	0	100
SEMESTER-VI	17	17	0	17	0	100

Chart Title

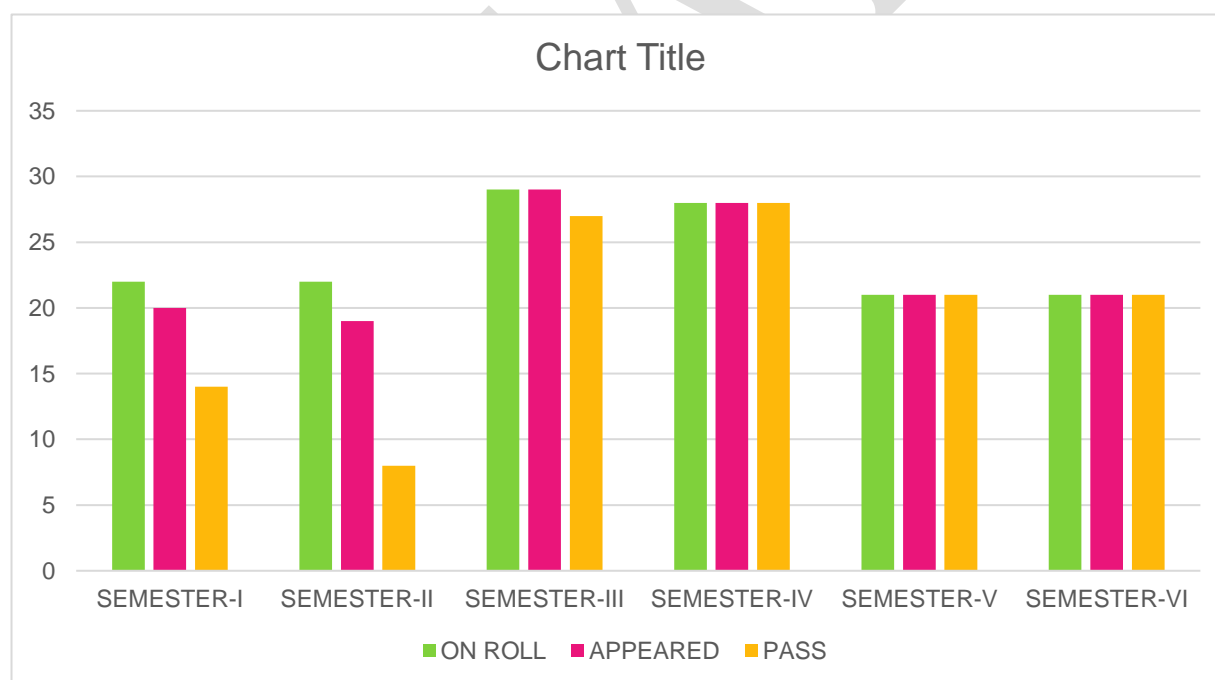


**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE (B)  
MANUGURU**

**DEPARTMENT OF BOTANY**

**RESULT ANALYSIS FOR THE AY - 2020 – 2021**

SEM	ON ROLL	APPEARED	ABSENT	PASS	FAILED	PASS %
SEMESTER-I	22	20	0	14	6	70
SEMESTER-II	22	19	3	8	11	42
SEMESTER-III	29	29	1	27	2	93
SEMESTER-IV	28	28	0	28	0	100
SEMESTER-V	21	21	0	21	0	100
SEMESTER-VI	21	21	0	21	0	100

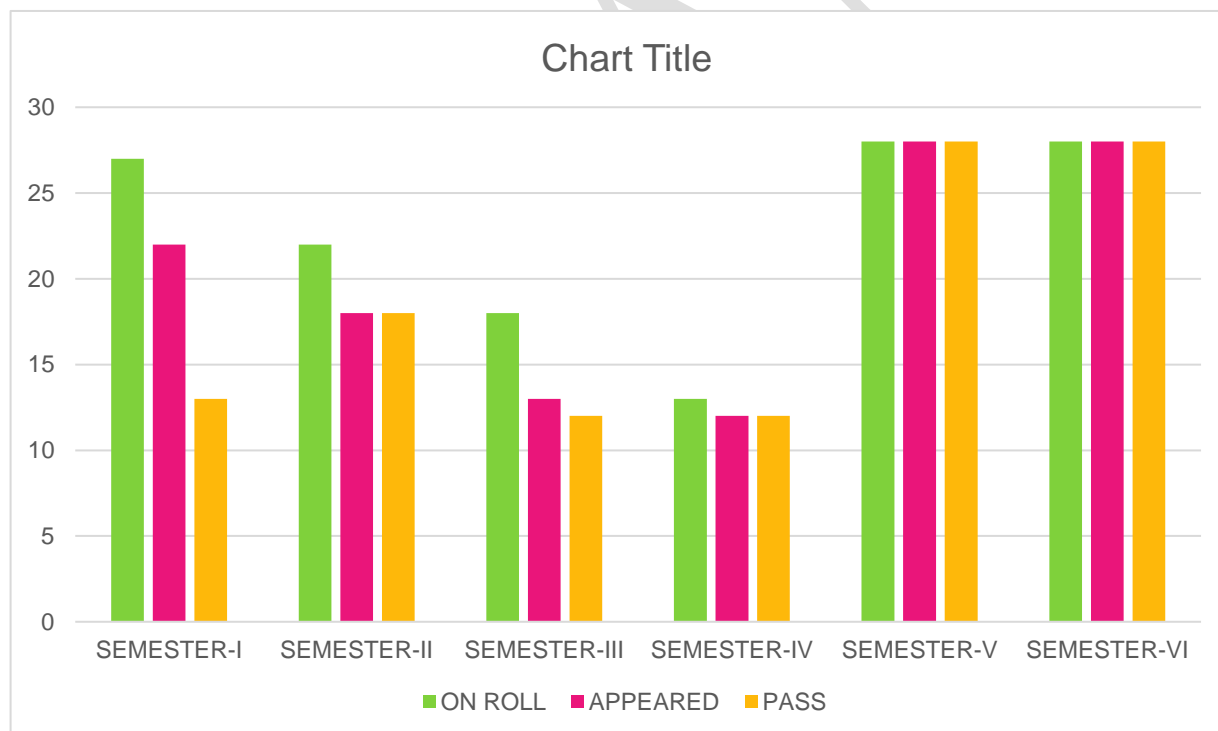


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**DEPARTMENT OF BOTANY**

**RESULT ANALYSIS FOR THE AY - 2021 - 2022**

SEM	ON ROLL	APPEARED	ABSENT	PASS	FAILED	PASS %
SEMESTER-I	27	22	5	13	9	59
SEMESTER-II	22	18	3	18	0	100
SEMESTER-III	18	13	5	12	1	92
SEMESTER-IV	13	12	1	12	0	100
SEMESTER-V	28	28	0	28	0	100
SEMESTER-VI	28	28	0	28	0	100

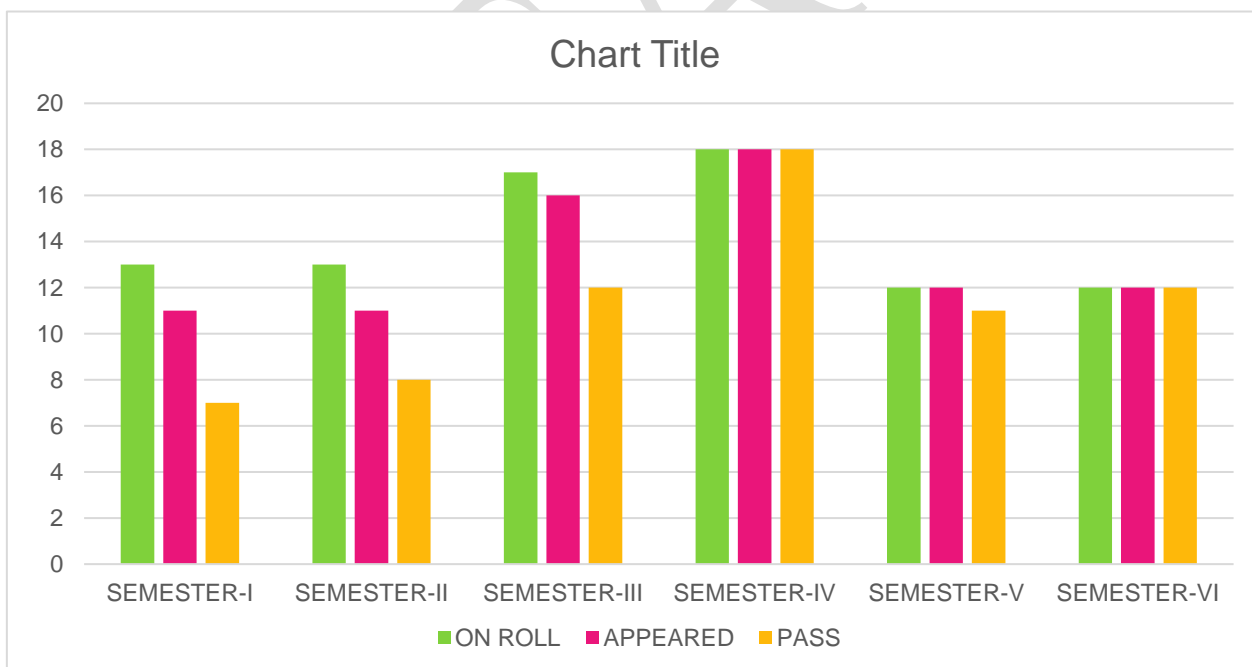


**TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE (B)  
MANUGURU**

**DEPARTMENT OF BOTANY**

**RESULT ANALYSIS FOR THE AY - 2022 - 2023**

SEM	ON ROLL	APPEARED	ABSENT	PASS	FAILED	PASS %
SEMESTER-I	13	11	2	7	4	63
SEMESTER-II	13	11	2	8	3	73
SEMESTER-III	17	16	1	12	4	75
SEMESTER-IV	18	18	0	18	0	100
SEMESTER-V	12	12	0	11	1	91
SEMESTER-VI	12	12	0	12	0	100



<b>DEPARTMENT OF BOTANY</b>						
<b>RESULT ANALYSIS FOR THE AY - 2023 - 2024</b>						
<b>SEM</b>	<b>ON ROLL</b>	<b>APPEARED</b>	<b>ABSENT</b>	<b>PASS</b>	<b>FAILED</b>	<b>PASS %</b>
SEMESTER-I	21	21	0	16	05	59
SEMESTER-II	21	21	0	18	03	100
SEMESTER-III	13	11	2	7	4	92
SEMESTER-IV	13	12	1	12	0	100
SEMESTER-V	28	28	0	28	0	100
SEMESTER-VI	28	28	0	28	0	100

BOTANY

### STAFF DETAILS FROM 2018 -23

S.No	Academic Year	Name of the Faculty	Qualification	Mobile Number
1	2018-19	K Srinivas	M.ScB.Ed	9885946965
2	2019-20	Ch Aparna	M.ScB.Ed	8977502289
3	2020-21	Ch Aparna	M.ScB.Ed	8977502289
4	2021-22	Ch Aparna	M.ScB.Ed	8977502289
		P Vasumathi	M.ScB.Ed	9121326881
5	2022-23	Ch Aparna	M.ScB.Ed	8977502289
		G Srikanth	M.Sc	7670876791
6.	2023-24	Ch Aparna	M.ScB.Ed	8977502289
		G Srikanth	M.Sc	7670876791
7.	2024-25	Ch Aparna	M.ScB.Ed	8977502289
		M.Dharani	M.Sc	9959226930

# STUDENT SEMINARS

## Student Seminar

The Botany Department encourages students to participate in seminars to develop their presentation, communication, and critical thinking skills.

1. To enhance students' knowledge and understanding of botany concepts.
2. To develop presentation, communication, and critical thinking skills.
3. To foster a culture of academic excellence and research.

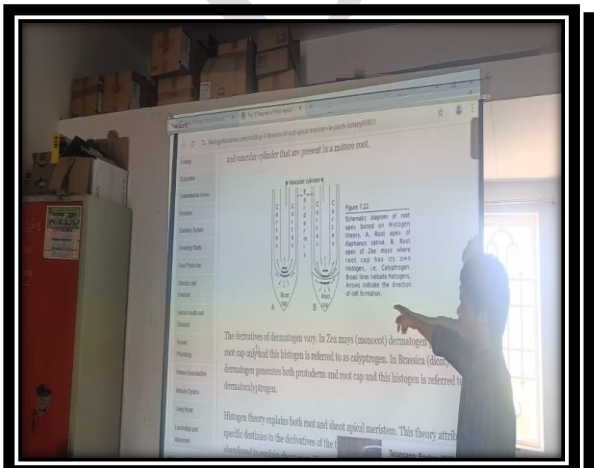
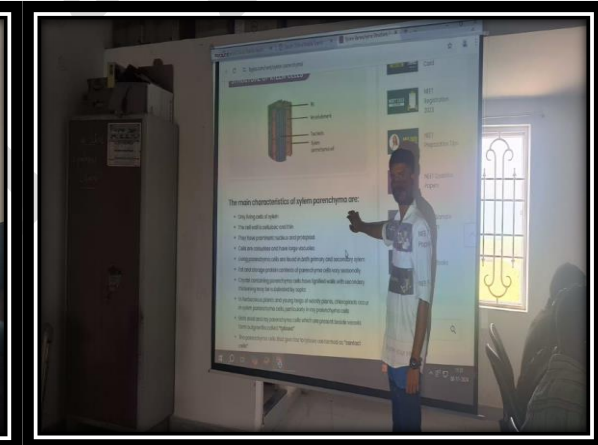
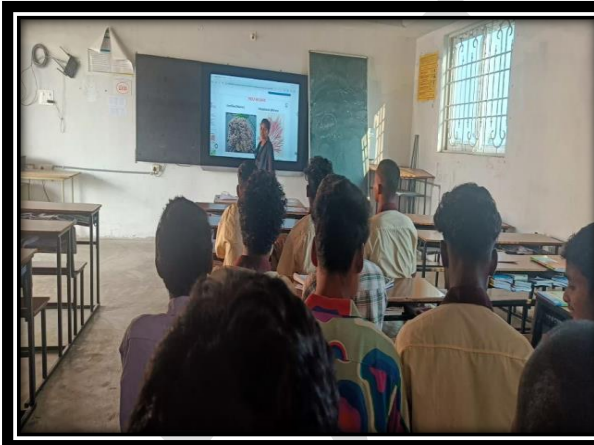
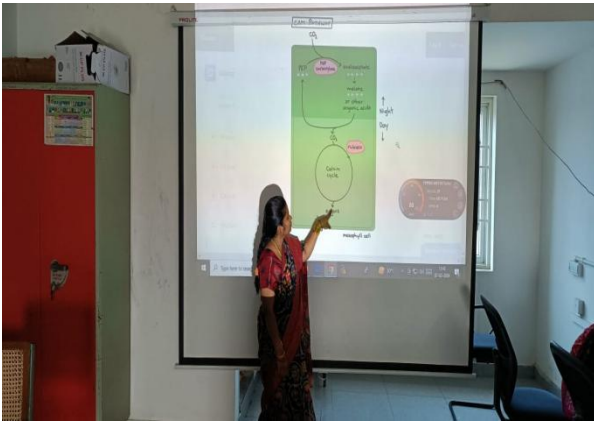




## ICT CLASSES

The Botany Department has effectively integrated Information and Communication Technology (ICT) into its teaching-learning process.

1. To enhance student engagement and participation.
2. To improve student understanding and retention of botany concepts.
3. To develop ICT skills among students and faculty.



## Laboratory Experiments

The Botany Department conducted lab practicals for undergraduate students to provide hands-on experience in various botanical techniques.

### Objectives

1. To provide students with practical experience in botanical techniques, such as plant identification, microscopy, and chromatography.
2. To develop students' observational, analytical, and problem-solving skills.
3. To foster a deeper understanding of botanical concepts and principles.



## Quiz

The Botany Department organized a quiz competition for undergraduate students to test their knowledge and understanding of botanical concepts.

### Objectives

1. To assess students' knowledge and understanding of botanical concepts.
2. To promote healthy competition and teamwork among students.
3. To identify areas where students require additional support and guidance.



## STUDENT ASSIGNMENTS

As part of our teaching-learning process, the Botany Department assigns regular assignments to students to reinforce their understanding of theoretical concepts and promote self-study.

### Objectives

1. To encourage students to explore and learn beyond the classroom.
2. To assess students' understanding of botany concepts.

### Assignment Topics are given from the following concepts:

1. Plant morphology and anatomy
2. Cell biology and Plant physiology
3. Microbial diversity and lower plants
4. Ecology and evolution
5. Taxonomy and plant systematic
6. Tissue culture and biotechnology
7. Biodiversity and conservation

BOTANY

**Criterion III:**

**RESEARCH, INNOVATION AND EXTENSION ACTIVITIES**

## Field Trips:

The Botany Department organizes regular field trips to provide students with hands-on experience and exposure to diverse plant species.

### Objectives

1. To provide students with practical experience in plant identification and ecology.
2. To enhance student understanding of botany concepts in a real-world context.
3. To develop observational, recording, and analytical skills among students.



## Extension activities

Department of botany conducted many plantation programs outside the campus and conducted awareness programs for spreading of eco-friendly practices.



SWATCH BHARAT



PLANTATION PROGAMS: Harithaharam

EARTH DAY



## EXTENSION LECTURES

### **Extension lecture: 07/12/2018**

Resource Person: MR.V.SRIMAN, Degree lecture in Botany Tttwrdc (Boys) Boath, Adilabad

The Department of Botany has organized an extension lecture on 07/12/2018. We are pleased to announce that MR.V.SRIMAN, a distinguished lecturer in botany with extensive expertise in plant biotechnology, has been invited as the resource person for this event.

He presented an additional lecture on Recombinant DNA Technology, elucidating the ways in which genetic engineering contributes to human well-being through the use of r-DNA Technology. Approximately 21 students took part in the event and engaged actively in responding to the questions posed by him.



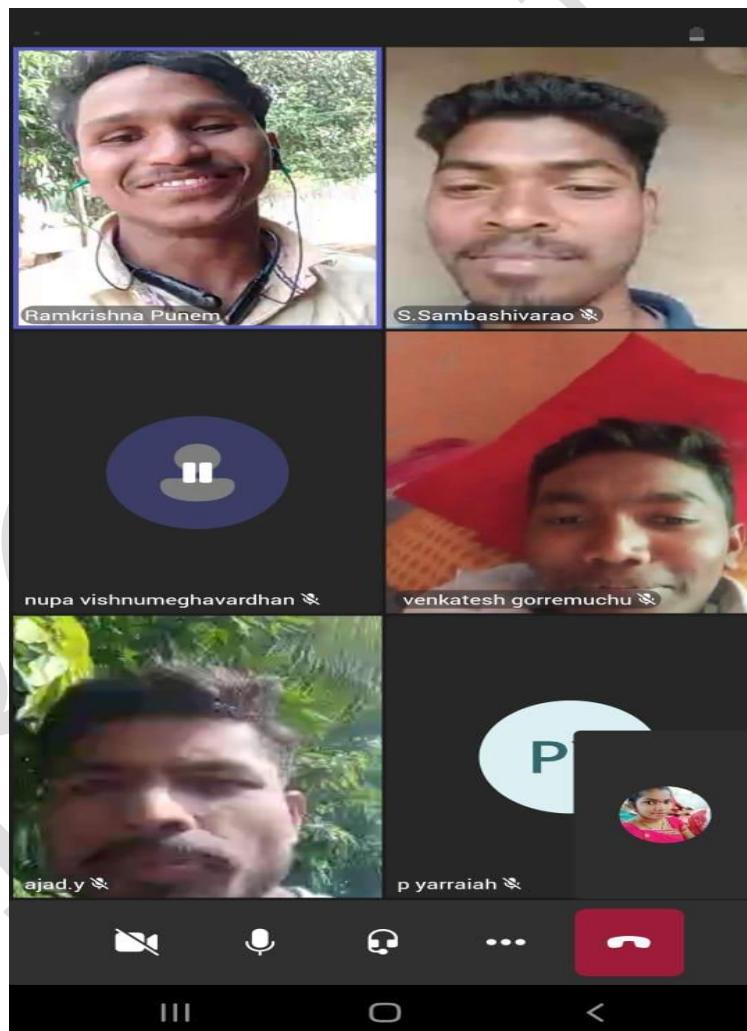


## Extension lecture:13/02/2020

Resource Person: K.Swetha, Degree lecture in Botany Tttwrdc (women) Kothagudem, BhadradiKothagudem

On 13/02/2020, the Department of Botany has scheduled an extension lecture. K.Swetha, a distinguished lecturer in botany who possesses comprehensive knowledge in plant physiology, has been invited as the resource person for this purpose.

An extension lecture on "GLYCOLYSIS" was presented by her, where she detailed the respiration process in plants. Approximately 16 students engaged in the program and actively responded to her inquiries.

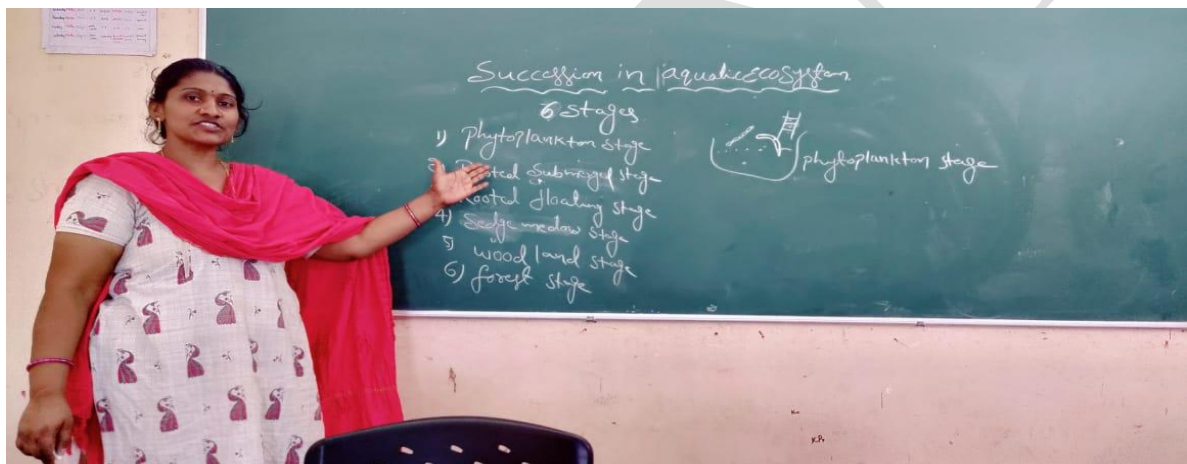


## Extension lecture:02/05/2022

Resource Person:DR.D.SNEHALATHA,Degree lecture in Botany Tswrdc (women) Siricilla.

Dr. D. Sneha Latha, a respected lecturer in botany known for her profound understanding of the subject, has been invited as the Resource person for an extension lecture arranged by the Department of Botany on 02/05/2022.

The extension lecture on "SUCCESSION IN AQUATIC ECOSYSTEM" was conducted by her, with approximately 18 students engaging actively and responding to the queries posed during the program.

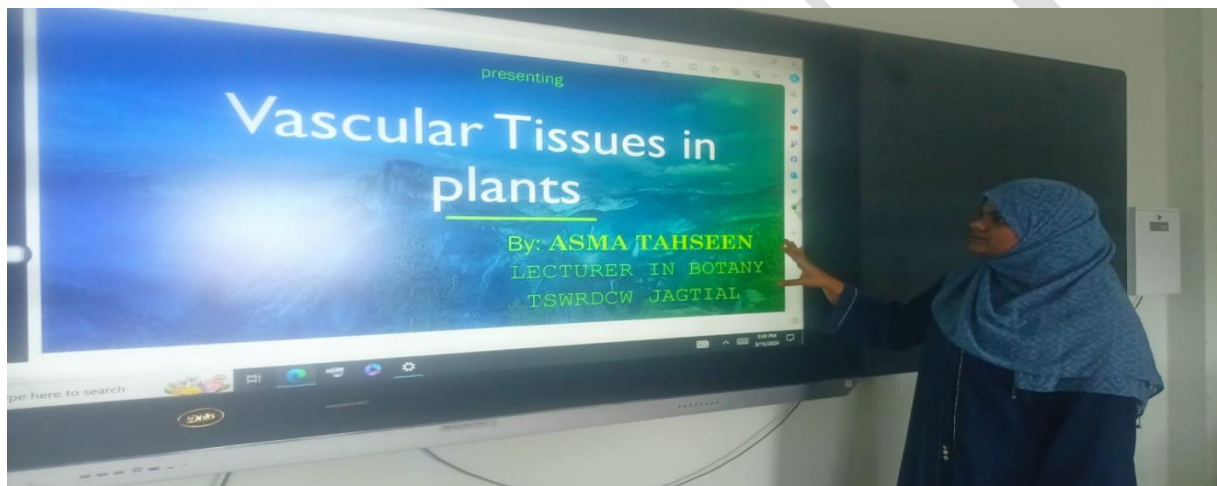


## Extension lecture:09/08/2023

Resource Person: Mrs.AsmaTahseen,Degree lecture in Botany tswrdc (women) jagityal,

A lecture extension has been scheduled by the Department of Botany on 09/08/2023. Mrs. Asma Tahseen, a renowned lecturer in Botany specializing in plant Anatomy, has been invited as the Resource person for this occasion.

A lecture extension on the subject of "Vascular Tissues in Plants" was delivered by her, where she expounded on the functionality of these tissues in plants. The program garnered the active participation of approximately 13 students, who readily engaged in responding to her queries.



# Webinar

The Botany Department organized a webinar on "Research Methodology and Plant Tissue Culture Techniques" to provide students and faculty members with an overview of the latest trends and techniques in plant research.

## Objectives

1. To provide an overview of research methodology in botany.
2. To introduce students and faculty members to plant tissue culture techniques.
3. To promote awareness about the importance of research in botany.

## Activities and Achievements

1. Webinar Organization: The webinar was organized by TG.T.W.R.D.C (BOYS)Manuguru
2. Resource Person: Dr. A.Sabitha rani and MD.Mustafa, a renowned expert in plant tissue culture, delivered the webinar
3. Webinar Content: The webinar covered topics such as research methodology, plant tissue culture techniques, and applications of plant biotechnology.
4. Participation: 100 students and 20 faculty members participated in the webinar.

## Outcomes and Impact

1. Improved Understanding of Research Methodology: Participants demonstrated improved understanding of research methodology in botany.
2. Knowledge of Plant Tissue Culture Techniques: Participants gained knowledge of plant tissue culture techniques and their applications.
3. Enhanced Research Skills: The webinar helped enhance research skills among participants, promoting critical thinking and problem-solving.

## Conclusion

The webinar on research methodology and plant tissue culture techniques was successful in promoting awareness and knowledge about the latest trends and techniques in plant research. We will continue to organize such events, providing students and faculty members with opportunities for professional development and growth.



## Telangana Tribal Welfare Residential Degree College(M) Manuguru

Affiliated to Kakatiya University, Warangal



Invites You to Webinar on  
16<sup>th</sup> January 2021

Research Design and Methodology in  
Biological Sciences

Time: 10.30 – 11.30 AM

Speaker



**Dr. A. SABITHA RANI**, M.Sc. Ph.D  
Associate Professor,  
Dept. of Botany  
Osmania University, Hyderabad.

• **Registration Link:**  
<https://forms.gle/mquzwx4YzXy2jNTV7>

- Participation Certificates will be issued
- The meeting link (ZOOM) will be shared one day before the Webinar

Plant tissue culture techniques, boom  
for breedings and secondary  
metabolites production

Time: 11.30 – 12.30 PM

Speaker



**Dr. Md. MUSTAFA**, M.Sc. Ph.D, FBS, FIAT  
Associate Professor,  
Dept. of Botany,  
Kakatiya University, Warangal



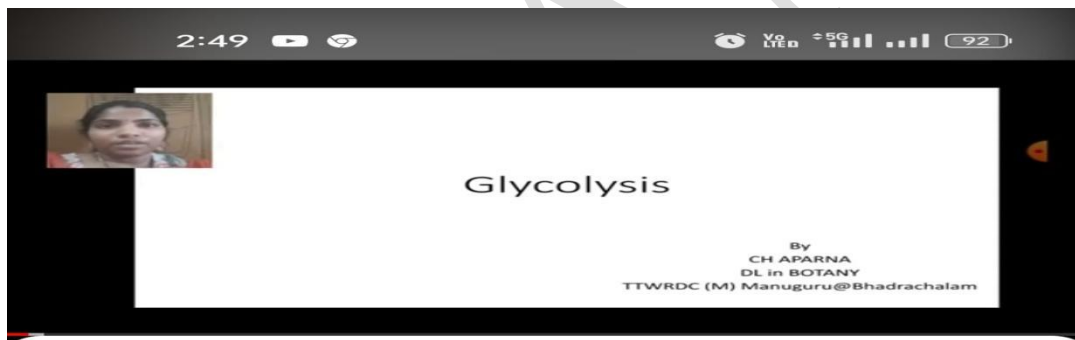
Organized by:  
**Ch. Aparna**  
DL in Botany, TTWRDC(M) Manuguru



Convener:  
**Dr. V. Saritha**  
Principal, TTWRDC(M) Manuguru

## Innovations

### YOU TUBE CHANNEL



### Lecture on Glycolysis

36 views 3 yr ago ...more



**Chukka Aparna** 2

**CRITERIA- IV**  
**INFRASTRUCTURE & LEARNING RESOURCES**

BOTANY

## 1. Laboratory & Equipment:

Department of botany has one laboratory and it has adequate equipment's to conduct practical's for UG students. List of equipment, glassware, Bio visual charts & furniture given in the table

S.NO	NAME OF THE ITEM	QUANTITY
1	COMPUND MICROSCOPES	8
2	DISSECTING MICROSCOPES	6
3	WEIGHING MACHINE	1
4	BURETTES	2
5	PIPETTES	8
6	CONICAL FLASKS 1000ml	2
7	CONICAL FLASKS 500ml	2
8	CONICAL FLASKS 250ml	2
9	BEAKER 1000ml	2
10	BEAKER 250ml	6
11	BEAKER 500ml	2
12	MEASURING CYLINDER 1000ML	1
13	MEASURING CYLINDER 500ML	4
14	MEASURING CYLINDER 250ML	6
15	TEST TUBES	100
16	WATCH GLASS	25
17	PEAGENT BOTTLES	24
18	PETRI DISHES	25
19	FILTER PAPERS	2
20	SLIDES	5 BOXES
21	CHEMICALS	36
22	BRUSHES	25
23	BLADES	25
24	COVER SLIPS	5
25	SPECIMENS	30
26	BIO VISUAL CHARTS	26

## Furniture

SNO	NAME OF THE ITEM	QUANTITY
1	Tables	4
2	Stools	20
3	Chairs	2
4	Almirahs	2

Department of Botany has a library with 12 reference books, 4 Practical manuals, 2 PG entrance books and 2 other books. They are readily available for faculty and students in the department.

## Departmental library

SNO	NAME OF THE ITEM	QUANTITY
1	Reference books	30
2	Practical manuals	120
3	Pg entrance books	10
4	Other books	50



**Criteria -V**

**STUDENT SUPPORT & PROGRESSION**

BOTANY

## ACHEIVEMENTS

Student Name	Course	Year	University/College
Y.SAIRAM	PG-BOTANY	2017-2020	SAIFABAD PG COLLEGE,OU
T. Praveen	PG-Botany	2018-2021	MG University
T. Vineeth	PG- Botany	2018-2021	PG College Saidabad
V. Naveen Prakash	PG- Botany	2018-2021	Kakatiya University , Warangal
U. Navajeevan	PG- Botany	2018-2021	Mahatma Gandhi University, Nalgonda
K. Kiran	PG- Botany	2018-2021	SR&BGNR Khammam

BOTANY

**Criteria-VI**  
**GOVERNANCE LEADERSHIP AND MANAGEMENT**

BOTANY

## DEPARTMENTAL MEETINGS

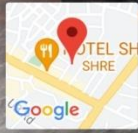
At the Department level, Department faculty members meet at necessary days to discuss academic matters like distribution of the syllabus among the faculty, Review of coverage of syllabus, Result Analysis and Course Outcomes, important days to celebrate, ICT, NAAC Records, etc.

## **COORDINATOR/MEMBER OF VARIOUS COMMITTEES**

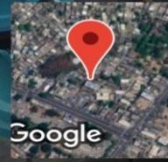
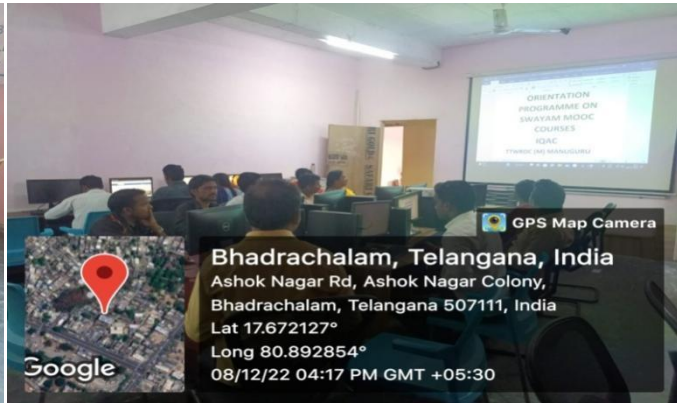
Every faculty member is member of at least one committee. He/she does fulfil the work assigned by the coordinator of the committee. It is important to mention here that, Department faculty member Ch.Aparna is serving as IQAC & NAAC coordinator from 2019 onwards.

Following table depicts responsibilities taken up by Department faculty members

s.no	Academic year	Name of the faculty	Additional incharge
1	2018-19	k.Srinivas	Alumni co-ordinator
2	2019-20	Ch.Aparna	IQAC Co-ordinator and bedding,clothing and trolley bags incharge.
3	2020-21	Ch.Aparna	IQAC Co-ordinator and bedding,clothing and trolley bags incharge.
4	2021-22	Ch.Aparna	IQAC Co-ordinator and bedding,clothing and trolley bags incharge.
5	2022-23	Ch.Aparna	IQAC Co-ordinator and bedding,clothing and trolley bags incharge.
6	2023-24	Ch.Aparna	IQAC Co-ordinator
7	2024-25	Ch.Aparna M.Dharani	IQAC Co-ordinator IQAC Team member and Criteria-VII member



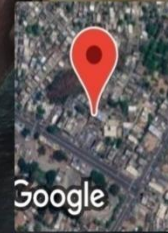
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Bhadrachalam, Telangana 507111, India  
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**Bhadrachalam, Telangana, India**  
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Bhadrachalam, Telangana 507111, India  
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**Bhadrachalam, Andhra Pradesh, India**  
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**Bhadrachalam, Andhra Pradesh, India**  
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Bhadrachalam, Andhra Pradesh 507111, India  
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Long 80.892746°  
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BOTANY

**CRITERION VII**

**INSTITUTIONAL VALUES AND BEST PRACTICES**

## Plastic free campus

As part of our commitment to environmental sustainability, our institution has launched an initiative to make our campus free from single-use plastic and reduce plastic waste.



## Swatch Gurukulam



## HARITHA HARAM

The Botany Department participated in the Harithaharam program, a state-wide initiative to promote tree plantation and environmental conservation. This report highlights the department's activities and achievements under the Harithaharam program.

### Objectives

1. To promote tree plantation and environmental conservation among students and the local community.
2. To create awareness about the importance of trees in maintaining ecological balance.
3. To involve students in hands-on activities related to tree plantation and care.







## AWARENESS PROGRAMMES

### Rally on Earth Day



## Rally on Forestry Day



BOTANY

# Best Practice: Medicinal Garden

## Introduction

The Telangana Tribal Welfare Residential Degree college (Boys), Manuguru has established a Medicinal Garden to promote research, education, and conservation of medicinal plants. This report highlights the objectives, activities, and outcomes of the Medicinal Garden.

## Objectives

1. To establish a comprehensive collection of medicinal plants.
2. To promote research and education in medicinal botany.
3. To conserve and propagate endangered medicinal plant species.
4. To create awareness about the importance of medicinal plants in healthcare.

## Activities and Achievements

1. Establishment of the Garden: The Medicinal Garden was established on 01-09-2024 with an initial collection of [10] medicinal plant species.
2. Plant Collection and Identification: The garden has a collection of [20] medicinal plant species, identified and labeled with their botanical names, family, and medicinal uses.
3. Research and Education: The garden is used as a teaching and research facility for students and faculty members, promoting hands-on learning and research in medicinal botany.
4. Conservation and Propagation: The garden has a conservation and propagation program for endangered medicinal plant species, ensuring their survival and availability for future generations.
5. Community Outreach: The garden organizes workshops, training programs, and awareness campaigns for the local community, promoting the importance of medicinal plants in healthcare.

## Outcomes and Impact

1. Improved Student Learning Outcomes: The garden has improved student learning outcomes, with students demonstrating a better understanding of medicinal botany and its applications.
2. Community Engagement: The garden has engaged with the local community, promoting awareness about the importance of medicinal plants in healthcare and providing training on their cultivation and use.

## Conclusion

The Medicinal Garden has achieved its objectives, promoting research, education, and conservation of medicinal plants. We will continue to develop and expand the garden, ensuring its sustainability and impact.

## Best Practice:2 Compost preparation

Introduction:

Composting is a natural process that involves the decomposition of organic materials into a nutrient-rich soil amendment. In this report, we document the preparation of compost using various organic materials in the botany department.

### Materials and Methods:

#### Materials:

- Dried leaves
- Vegetable waste
- Fruit peels
- Cow dung
- Soil
- Water

#### Methods:

1. Collection of organic materials: Dried leaves, vegetable waste, fruit peels, and cow dung were collected from the department's garden and nearby areas.
2. Preparation of compost pit: A compost pit was prepared by digging a 3x3x3 feet pit in the department's garden.
3. Layering of materials: The collected organic materials were layered in the compost pit, starting with a 4-6 inch layer of dried leaves, followed by a layer of vegetable waste, fruit peels, and cow dung.
4. Addition of soil and water: A layer of soil was added on top of the organic materials, followed by watering.
5. Monitoring and maintenance: The compost pit was monitored regularly, and the materials were turned and aerated to ensure proper decomposition.

#### Results:

After 6-8 weeks of composting, the organic materials had decomposed into a nutrient-rich compost. The compost was dark brown in color, with an earthy aroma.

#### Discussion:

The compost prepared in this study was rich in nutrients, including nitrogen, phosphorus, and potassium. The compost can be used as a natural fertilizer in the department's garden, reducing the need for chemical fertilizers.

**Conclusion:**

This study demonstrates the preparation of compost using various organic materials. The compost prepared in this study can be used as a natural fertilizer, promoting sustainable gardening practices.

BOTANY