



HISTORY

The department of Botany is one of the science departments of New Government Degree College for Women, Golconda established in 2015, it had the rare privilege of becoming the first science department of the college. The college is now affiliated to the Osmania University, Hyderabad. Right from 2015 the department offered a 3 year undergraduate program in Botany with Zoology and Chemistry as subsidiary subjects. The course was modeled on the annual evaluation system and the instruction was tailored to address the learning objectives defined in the syllabus. With the introduction of choice based credit system the department moved to more flexible and innovative space in terms of the form and content of the program from 2016 onwards. The new program is structured on semester basis which runs through 3 years from the entry level.

VISION

- ❖ To facilitate women's access to the domain of scientific knowledge to contribute significantly in the dissemination of new knowledge in the discipline of Botany by providing strong foundation.
- ❖ To inculcate critical thinking, group discussions, analytical skills to enable to pursue higher studies and research in Life sciences, Forensic sciences related to the field of Botany.
- ❖ To create human resources in the region properly equipped and trained strictly in adherence to the language of the discipline of Botany.
- ❖ Inculcate high values through a liberal education
- ❖ Promote research and learning at the UG level and beyond.

MISSION

The goals of mission are well defined and synchronized with its vision.

- ❖ To stimulate the propensity of the women in the region to imbibe the spirit of knowledge To provide space for appropriate pedagogy to inculcate the knowledge of the discipline and the human values

- ❖ To offer academic programs at under graduate and post graduate levels in the discipline of Botany.
- ❖ To strengthen the drive for moving towards the frontier knowledge of the discipline of Botany.
- ❖ To move beyond academics to provide leadership for community centered activities in the region.

ACADEMIC PROGRAMMES

BACHELOR OF SCIENCE IN BOTANY

- ❖ The academic program at the undergraduate level with Botany as major and Zoology and Chemistry as minor (subsidiaries) leads to bachelor of science in Botany. It is a 3 years program with (CBCS) choice based credit system.

PROGRAMME AND MEDIUM OF INSTRUCTION.

- ❖ B.Sc (BZC), E/M & U/M.

The Core Papers (New CBCS System)-2016-2018 (Semester system).

- ❖ Semester I –Microbial Diversity of Lower Plants.
- ❖ Semester II–Bryophytes,Pterodophytes,Gymnosperms and Paleobotany.
- ❖ Semester III –Taxonomy of Angiosperms and Medicinal Botany
- ❖ Semester IV –.Plant Anatomy,Embryology and Palynology.
- ❖ Semester V (DSC) –Cell Biology and Genetics.
Semester V (DSE) – I(A)- Ecology and Biodiversity
I(B)-.Horticulture
I(C)-GE-1E-Economic Botany
- ❖ Semester VI (DSC) –Plant Physiology.
Semester VDSE) – II(A)- Tissue Culture and Biotechnology
II (B)-Seed Technology .
II(C)- GE-2F- Plant Biodiversity and Human Welfare.

The Core Papers (New CBCS System)-2019-2020 (Semester system).

- ❖ Semester I – Microbial Diversity and Lower Plants.

- ❖ Semester II- Gymnosperms Taxonomy of Angiosperms and Ecology.
- ❖ Semester III – Plant Anatomy and Embryology.
- ❖ Semester IV –Cell Biology, Genetics and Plant Physiology.

COURSE OUTCOMES OF BOTANY

I-YEAR SEMESTER- I

TITLE: MICROBIAL DIVERSITY AND LOWER PLANTS CODE: BS104: CT: DSC 1A

On completion of the courses students will be able

CO1- To identify and Recognize the Gram positive and negative bacteria, bacterial diseases and its economic importance.

CO2- Recognize the Viral diseases, type of replication and its controlling measures.

CO3- Identify, Classify the Algal mixtures and Knowledge of Cyanobacteria as biofertilizers.

CO4- List characteristics and Symptoms of Fungal members Albugo, Mucor, Saccharomyces, Penicillium, Puccinia and Cercospora.

CO5- Economic importance of Lichens.

CO6- Practice labeling diagram, classify and understand the Structure, Reproduction and life cycle of Bryophytes, Pteridophytes and its economic importance.

I –YEAR SEMESTER- II

TITLE: GYMNOSPERMS, TAXONOMY OF ANGIOSPERMS AND ECOLOGY CODE:

BS204:CT:DSC 1B

On completion of the courses students will be able:

CO1-To Describe the list of characters, economic importance of Gymnosperms.

CO2- To understand the methods of fossilization, types and importance of fossils in geological time scale.

CO3-To understand the Taxonomy and systematic, classification and describe the family in taxonomic level.

CO4- To identify and understand the components of ecosystem, Ecological adaptations and plant succession Climax formation with reference to Hydrosere and Xeroxere.

II YEAR SEMESTER-III

TITLE: PLANT ANATOMY AND EMBRYOLOGY

CODE: BS304:CT:DSC :1C

On completion of the courses students will be able:

CO1-To describe the Meristem,Tissues and Tissue systems.

CO2-Describe and understand the anatomical study of Vascular Cambium formation,function in Stem and Root.

CO3-Differentiate and analyze the Wood Structure in locally available timbers.

CO4- Identify the Anamalous secondary growth in stems.

II- YEAR SEMESTER- IV

TITLE:CELL BIOLOGY, GENETICS AND PLANT PHYSIOLOGY CODE: BS404:CT:DSC 1D

On completion of the courses students will be able:

CO1- Identify the primary components of the cell's & their role in shape & function of cell.

CO2- Differentiate prokaryotes & Eukaryotes,Plant cell and animal cell.

CO3-understand the laws of Inheritance

CO4-Identify chromosomal mutations and in-born errors of metabolism

CO5- Compare the nucleic acids DNA and RNA and their functions.

CO6-Understand the concepts of Plant Water relations,Translocation of organic substances,Photosystems,Nitrogen Metabolism,Respiration.

CO7-Understand the concepts growth and development,Physiology of Flowering and Photoperiodism ,Stress es and plant responses.

PROGRAMME AND MEDIUM OF INSTRUCTION.

❖ **B.Sc (BZC), E/M & U/M.**

NUMBER OF TEACHING POSTS:

<i>Designation</i>	<i>Sanctioned</i>	<i>Filled</i>
Professors	Nil	Nil
Associate Professors	Nil	Nil
Assistant Professors	Nil	Nil
Guest Lecturer	1	1

Faculty profile :Humera Shabnam

<i>Name</i>	<i>Qualification</i>	<i>Designation</i>	<i>Specialization</i>	<i>No. of Years of Experience</i>	<i>No. of Ph.D Students guided for the last 4 years.</i>
Humera Shabnam	M.Sc., Ph.D Pursuing	Lecturer in Botany	Applied Palynology and Paleophytology	02	-

Humera Shabnam

LIST OF PAPERS PRESENTED:- 03

1. Humera shabnam participated in the one day workshop on “practical as a tool for teaching sciences” on 24th january 2020 organised by the centre for professional development of urdu medium teachers maulana azad national urdu university, Hyderabad.
2. Attended and presented poster entitled “study of aerospora in the atmosphere of deccan park, tolchowki area, central zone, Hyderabad, Telangana”. In section of plant sciences 107 indian science congress organised by university of agricultural sciences, bangalore, karnataka from january 3rd to 7th 2020. Which was inaugurated by our Hon’ble Prime Minister Mr.Narendra Modi.
3. Science Talk on BEDAREI KAINATH topic on “WESTERN GHATS” in ‘All India Radio’ station Air Hyderabad for 18 min” duration on 8th June 2019.
4. Won Best Poster Presentation award in 2 day’s National conference on “Climate Change – Issues, Challenges and Strategies for conservation of medical plants” on 6th & 7th March 2019organized by Department of Botany Kakatiya University Warangal.
5. Won 2nd Prize for Poster Presentation in 2 day’s National conference on “New Horizons inApplied Plant Sciences Research and Its impact on Human welfare” on 30th & 31st October 2018organized by Department of Botany Anwarul-Uloom college Osmania University.

CONFERENCES AND CERTIFICATIONS:-

1. One-Day National Conference in Osmania University on “Attitudes, Etiquettes and Gratitudes” on 19 July 2019.
2. Two-Day National Conference on “Plants Science Research: Current Status and

Future Challenges (NCPSCFC-2017)” held at University College of Women, Koti, Hyderabad 2017.

3. Two-Day National Conference on “Biodiversity and Human Health: Challenges, Opportunities for Conservation, Utilization and Policy Making”, organized by Nizam College in association with Telangana State Medicinal Plant Board held at Nizam College, Hyderabad, 2017.

Certificate courses

➤ The department of Botany has started certificate course on “***Pollen morphology and phenology of some taxa in the environment of Government Degree College [W]***” in the month of November 2019. during the academic year 2019-2020.[Jignasa - Student Study Project]

TEACHING METHODS ADOPTED TO IMPROVE STUDENT LEARNING

- Innovative Methods i.e., Power Point Presentation, etc.
- Some of the teaching methods that are adopted to enhance student learning by Botany department are Bio-visual charts, Models, Slides, Specimens.
- PPTs, Smart boards, LCD Projector, Videos.
- Students Seminar, Group discussions, Quiz programs.
- Guest lectures by subject experts.
- Students study project through JIGNASA programs to create interest in research.
- Attending MANA TV topics delivered by subject experts and students.
- Remedial classes for weak students.
- Field trips

LAB INFRA STRUCTURE

Department of Botany is well equipped with one Laboratory facilities for all I,II & III BZC students. An array of Plant specimens is the highlight of the Department.

- Plant specimens
- Models
- Specimens
- Glassware
- pH Meter
- Colorimeter
- Centrifuge

- Permanent slides as per Syllabus
- Binocular Microscopes
- Simple Microscopes
- Dissection Microscope
- Bio-visual charts
- Heater
- Weighing Machines

Learning Resources

- Departmental library

ICT Resources

- Desktop with Wi –Fi connection

Others

- Teaching kits

STUDENTS STUDY PROJECTS.

<i>1</i>	<i>BSC.BZC</i>	<i>2019-2020</i>	<ul style="list-style-type: none"> ➤ “Pollen morphology and phenology of some taxa in the environment of Government Degree College [W]” in the month of November 2019. during the academic year 2019-2020.[Jignasa - Student Study Project]
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PHOTO GALLERY

ACTIVITIES OF THE DEPARTMENT OF BOTANY





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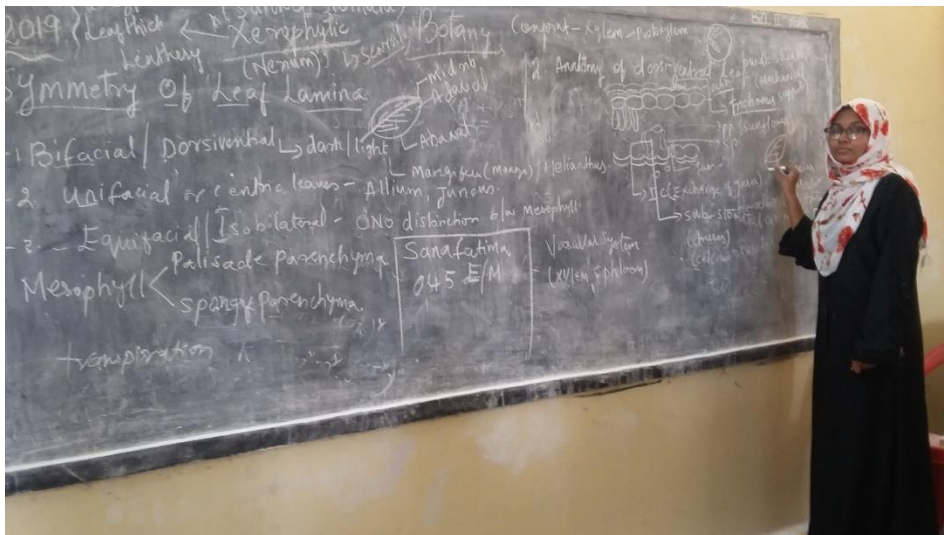
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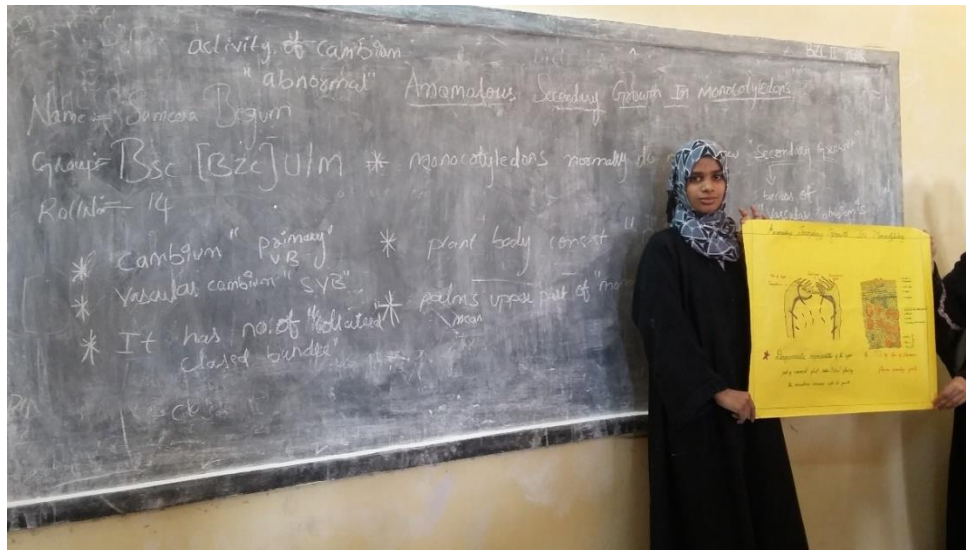
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JIGNASA STUDENTS STUDY PROJECT TEAM 2019



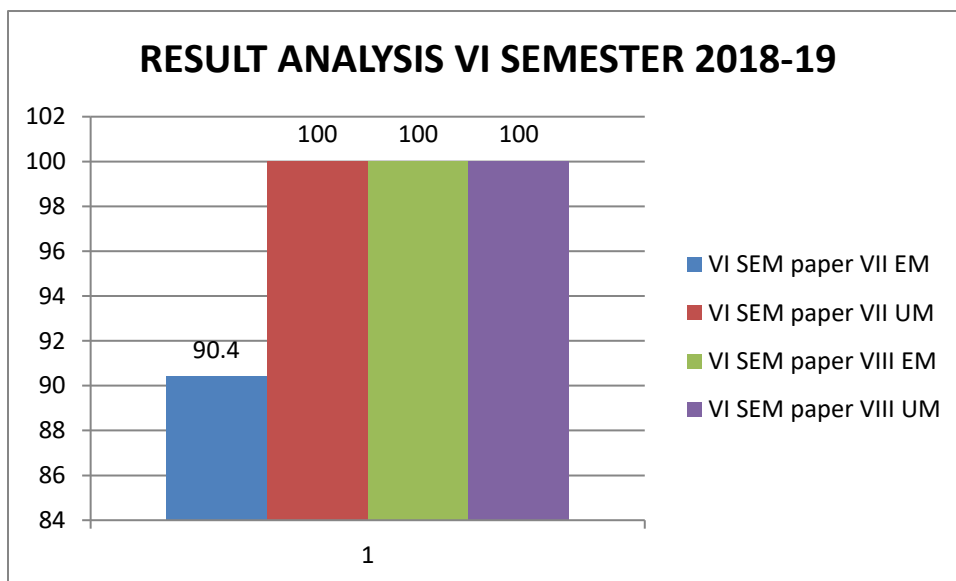
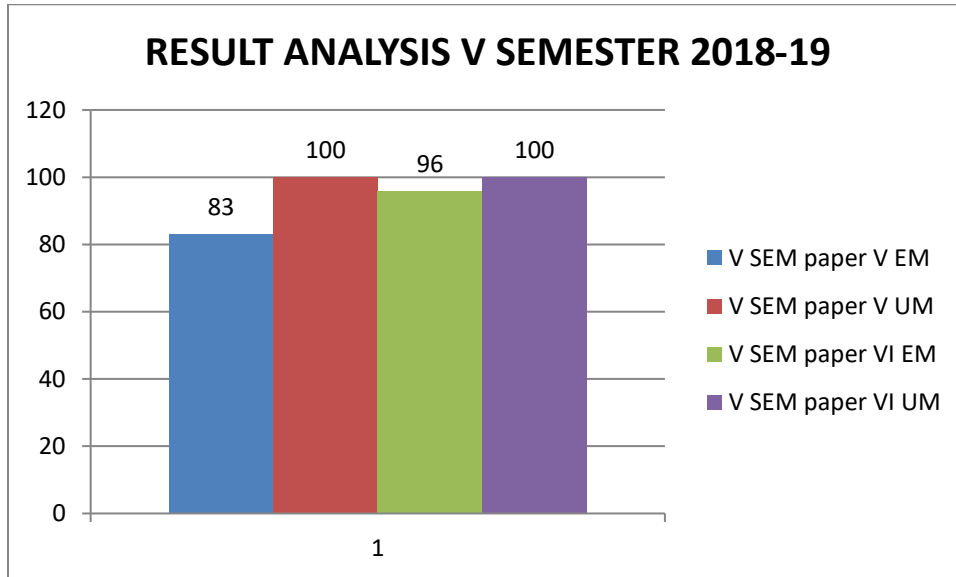
STUDENTS SEMINARS & GROUP PRESENTATION



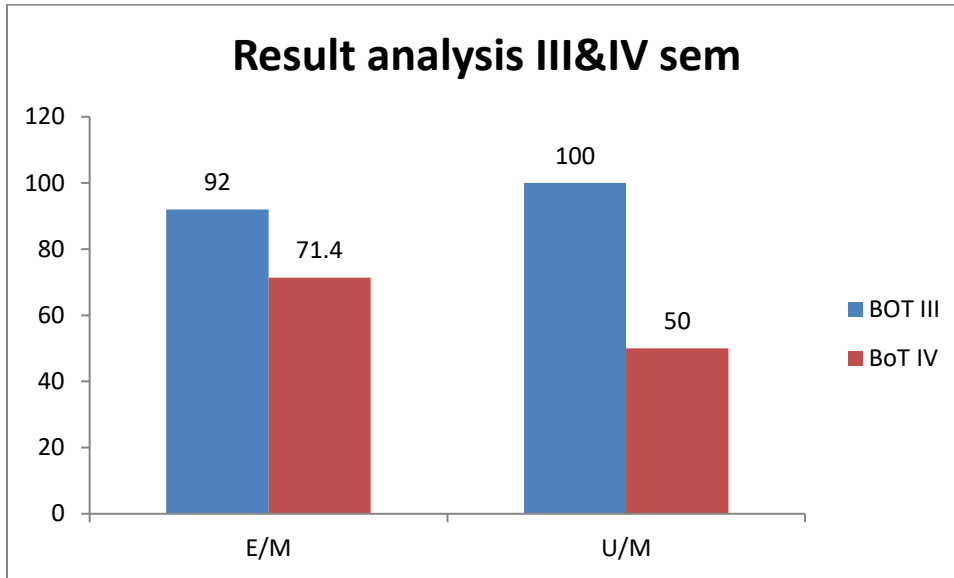


DEPARTMENT OF BOTANY

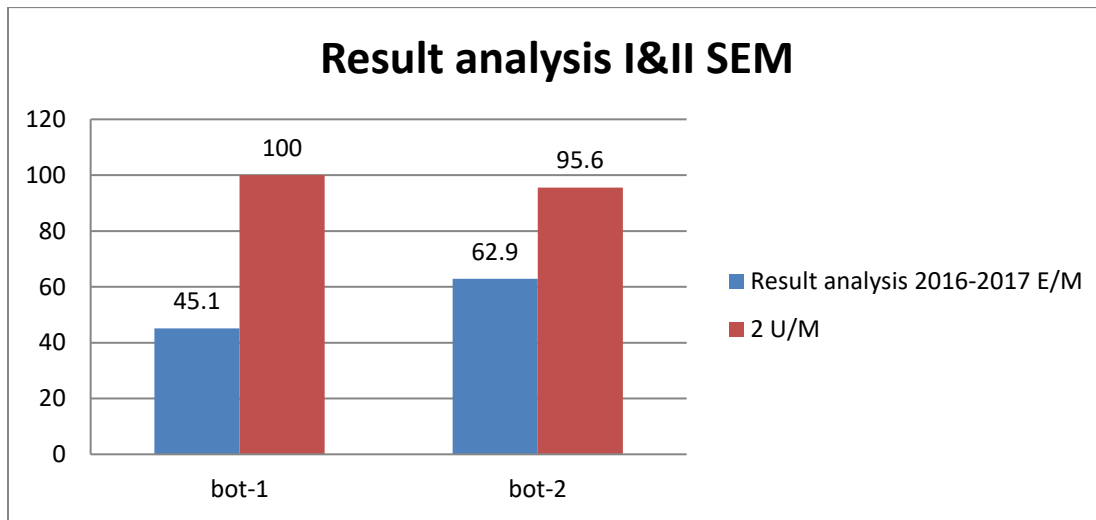
RESULT ANALYSIS-2018-2019



RESULT ANALYSIS-2017-2018



RESULT ANALYSIS-2016—2017.



FUTURE PLAN

- Upgradation of existing lab with few equipments and materials.
 - Planning to establish PG course in Botany.
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