



Pandit Dindayal Upadhyay Education Society's



**Shri Sant Savta Mali Gramin Mahavidyalaya,
Phulambri, Dist. Aurangabad.**

Academic year

2019-2020

Department of Botany

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Introduction Of Botany

The term biology (bios-life; logos-discourse) was first used by Lamarck and Treviranus (1801) **Biology**, (the study of life) is a branch of science which deals with living organism, including both plants and animals. But **Aristotle** (384-322 B.C.) was the first person to study animals in sufficient detail and so he is known as “**Father of Biology**”. The branch of biological science which deals with plants is called **Botany** (botane-herb) and that deals with animals is called Zoology (zoion-an animal; logos-discourse). The term ‘botany’ derives its origin from the Greek word ‘botane’ which means herb i.e., plants. The Greek naturalist **Theophrastus** (372-286 B.C.), a student Aristotle, prepared a list of 500 plants with their names and description, presented in “Historia plantarum”. Based on habit, he classified plants into four groups: Herb, Undershrub, shrub, and tree. It is the oldest botanical work in existence and so Theophrastus is called the “**Father of Botany**”

Botany is one of the world’s oldest natural sciences. Initially, Botany included all the plant-like organism such as **algae**, **lichens**, **fern**, **fungi**, **mosses**, along with actual plants. Later, on, it was observed that **bacteria**, **algae** and **fungi** belong to a different kingdom.

Plants are the major source on earth. They provide us with food, oxygen and variety of raw material for various industrial and domestic purposes.

The invention of the compound microscope by **Robert Hook** in **1665** marked the advancement of scientific knowledge in the field of botany. It helped in the study of the anatomy and physiology of the plants. The discovery of **chlorophyll** helped in understanding the process of **photosynthesis**.

Gregor Mendel studied the genetic inheritance in plants through his experiments on **pea (*Pisum sativum*)** plants.

Botany is divided into a number of branches: Plant Pathology, Plant Ecology, Palaeobotany, Archaeobotany, Forensic Botany, etc.

1. Plant pathology:

It is the study of organism and environmental conditions that are responsible for **causing diseases** in **plants**, the mechanism by which the disease occurs, and the methods of controlling plant diseases.

2. Plant Ecology:

Plant studies the distributions of plants, how do the **environmental factors** affect plants and the interactions between plants and other organisms.

3. Paleobotany:

This the branch of botany that deals with the recovery and identification of plant **fossils**, thereby, studying the evolutionary history of plants.

4. Archaeobotany:

It is the study of past human-plant interactions through the recovery and analysis of ancient plant remains. Paleoethnobotanical studies are divided into **two categories**: Those concerning the **Old world** (Eurasia and Africa) and those that pertain to the **New world** (Americas).

5. Forensic Botany:

It is thus defined as the use of plants and plant parts including as **pollen, seeds, leaves, flowers, fruits** and **wood** in the investigation of criminal cases, legal questions, disputes, or, in non-criminal cases, to ascertain cause of death or former location.

➤ Details of Papers

• B.Sc. 1st Year Botany

Semester	Paper No.	Title of Paper	Marks
Semester I	Paper-I	Diversity Of Cryptogams-I	50
Semester I	Paper-II	Morphology Of Angiosperms	50
Semester I	Paper-III	Practical based on Paper I	50
Semester I	Paper-Iv	Practical based on Paper II	50
Semester II	Paper-V	Diversity Of Cryptogams-II	50
Semester II	Paper-VI	Histology, Anatomy And Embryology	50
Semester II	paper-VII	Practical based on Paper-V	50
Semester II	Paper-VIII	Practical based on Paper-VI	50

• B.Sc. 2nd Year Botany

Semester	Paper No.	Title of Paper	Marks
Semester III	Paper-IX	Taxonomy Of Angiosperms	50
Semester III	Paper-X	Plant Ecology	50
Semester III	Paper-XI	Practical based on IX	50
Semester III	Paper-XII	Practical based on X	50
Semester IV	Paper-XIII	Gymnosperm and Utilization Of Plant	50
Semester IV	Paper-XIV	Plant Physiology	50
Semester IV	Paper-XV	Practical based on XIII	50
Semester IV	Paper-XVI	Practical based on XIV	50

• B.Sc. 3rd Year Botany

Semester	Paper No.	Title of Paper	Marks
Semester V	Paper-XVII	Cell Biology & Molecular Biology	50
Semester V	Paper-XVIII(A)	Diversity Of Angiosperm-I(A)*	50
Semester V	Paper-XIX	Practical based on XVII	50
Semester V	Paper-XX(A)	Practical based on XVIII(A)	50
Semester VI	Paper-XXI	Genetics And Biotechnology	50
Semester VI	Paper-XXII(A)	Diversity Of Angiosperm-II(A) *	50
Semester VI	Paper-XXIII	Practical based on XXI	50
Semester VI	Paper-XXIV(A)	Practical based on XXII(A)	50

Note: Those * (Star) Papers are Elective.

➤ Inauguration of Science Club:

The science club was inaugurated on date 22/08/2019 On occasion of inauguration program Dr. R. P. Chondekar sir Dept. of zoology, Dr. Babasaheb Ambedkar marathwada University, Aurangabad was designated as chief guest. They had given the valuable speech on the scope of science to student. The principal of our college Dr. S.R. Takle Sir was designated as chairman of inauguration function. They also guided the student. Introductory presentation was given by Asst. Prof. Dr. Durgesh N. Phulwade. Anchoring of programme was done by Miss. Divya Dhangare And the vote of thanks is given by Asst. Prof. Dr. Durgesh N. Phulwade. In academic year 2019-20, the avishkar club established in department of science. For this science club student committee is selected as follows:

Sr. No.	Student's Designation	Student's Name
1	Chairman	Divya Dhangare
2	Vice Chairman	Amol Dakle
3	Member	Rutuja Pawar
4	Member	Aarti Shewale
5	Member	Rani Shingare

• Education Tour

Educational tour plays important role in development of interest towards environment. We arrange educational tour for B.Sc 1st, 2nd and 3rd year students on date 24/12/2019 at department of botany, Dr. Babasaheb Ambedkar Marathwada University Aurangabad. We gave the information of [plant tissue culture laboratory](#), [Plant Pathology Lab](#) give the information about [plant diseases and Herbarium](#) at Dr.BAMU Aurangabad to students. Students also observed environment diversity. All students gave response and enjoyed also. We also visited Govt. Institute of Science Auragabad For educational tour. Dr. Abhay Salve Sir Asst. Prof. of insititute have given information about various modern Instruments like [Light Microscope](#), [Autoclave](#), [Laminar Air flow](#), etc. Along with it they have also provided information regarding species of Algae.

- **Guest Lecture**

On Date 30/08/2019 for the development of student we arranged the guest lecture. To deliver the lecture in subject Botany, We invite Prof. Rohit U. Shete Sir Dept. of Botany from Sundararao Solunke Mahavidyalay, Majalgaon. He delivered their valuable lecture on the topic of **Basic Botany**. Students are really inspired by this lecture. Another lecture delivered on 02/01/2020 by Prof. Kalpana Kharat Madam from Govt. Institute of Science, Aurangabad on the topic of **Photosynthesis**. Because of those lecture student have cleared their doubt And they have secured good marks in final exam.

- **Seminar for Students**

Seminars are very important for the development of students get stgs daring and also go through syllabus which helps in exam to get good scores.From 20/01/2020 , we started taking seminars on botany.Our srtudents was enthusiastically participated in delivaring the seminar on various topics of botany.

- **Poster Inauguration Function**

We started poster presentation which will help students to think subjects in different ways. Students will also begin to think of applications of subjects which will help for research purpose. We inaugurated poster presentation in the presence of Dr. Rohit Shete Sir. Our students were enthusiastically participated in poster presentation. Students design poster in various areas of botany and present it successfully.

- **Pre-Exam for I and II Semester**

From academic year 2019-2020, we firstly arranged the pre exam for the preparation of final exam. Students gave good response for it. All students attempted pre exam and score good marks. In final semester also, maximum students score good marks due to pre-exam.

- **Final Exam**

Dr. Babasaheb Ambedkar Marathwada University Aurangabad takes two semesters in year. First semester held in Oct-Nov 2019 and second and forth semester held in March-April 2020. In first and third semester which held in Oct-Nov 2019, all students scored good marks.

- **Avishkar Competition 2019-20**

Dr. Babasaheb Ambedkar Marathwada University Aurangabad as organize Avishkar 2019-2020 on dated 20th and 21st December 2019. In this competition three teams have participated B.Sc 1st, 2nd and 3rd year. In UG level pure science 3rd year **won first prize** in University level. Next competition has organized by Mumbai University in State level.

- **Science Day Program 2019-20**

Shri Sant Savta Mali Gramin Mahavidyalya Phulambri, Aurangabad. **Organize science day program** under the avishkar club in this program chief guest Dr. Prof. Chondekar Sir and Dr. Principal S. R. Takle have delivared motivational speech to students. All staff of science faculty and all three years students attend the program.



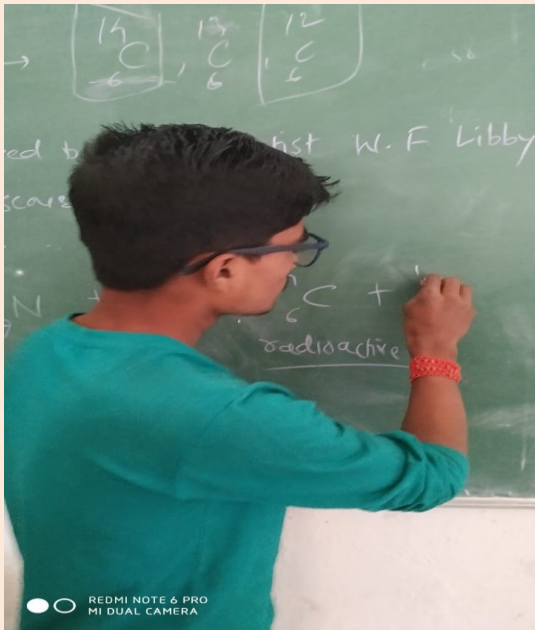
Principal, Dr. S.R. Takle and other guest while inaugurating the program.



Visit to Dept. of Botany in BAMU Aurangabad



Guest Lecture



Student of B.Sc. giving seminar actively



Student of B.Sc presenting Posters



Students observing projects



Prize distribution at BAMU Aurangabad