KAVAYITRI BAHINABAI CHAUDHARI NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Science and Technology

'A' Grade
NAAC Re-accredited
(3rd Cycle)

F. Y. B. Sc. BOTANY

Theory and Practical Syllabus

(CBCS Pattern)

As Per U. G. C. Guidelines

Semester – I

To Be Implemented From

Academic – Year 2022 - 2023

BOT. – 101: Diversity of Lower Cryptogams

BOT. – 102: Morphology of Angiosperms

BOT. – 103: Practical Based on BOT.-101 and BOT.-102

F.Y. B.Sc. Semester I

Paper III
Bot-103: Practical (Based on Bot.101 and Bot.102)

Practical – 1 : Study of Equipment, Chemicals and Stains used in Botany laboratory:

A) Equipment: Dissecting microscope, Compound Microscope

B) Chemicals:

i) Preservatives: FAA

ii) Stains: Safranin, Light green, Fast green, Cotton blue, Crystal violet,

iii) Mounting media; Glycerine, Lactophenol.

Practical - 2:.A) Study of viruses and bacteria using electron photomicrographs (TMV, Bacteriophage, Cocci, Bacillus, Spirillum Bacteria).

B) Technique of Gram staining of bacteria.

Practical – 3 & 4 : A) Study of Plant diseases w.r.t. causal organism, symptoms and control measures of the following:

a. Virus.

i. Yellow vein mosaic disease of Lady's finger

ii. Bunchy top of Banana

b. Bacteria

i. Citrus canker

ii. Black arm of cotton

c. Fungi

i. Green mould of citrus fruits

ii. White rust disease (Specimen/P.S.)/Tikka disease on groundnut [P.S.] (Any one)

B) Study of growth forms of lichens (Crustose, Foliose and Fruticose) specimens / P.S./ Photographs

C) Study of Mycorrhiza: (Ectomycorrhiza and Endomycorrhiza) by Photographs.

Practical -5& 6: Study of systematic position, vegetative and reproductive structures of the following:

A. *Nostoc*

i) Vegetative structure -Filament and cell

ii) Reproductive structure (P.S.)

B. *Sargassum*

i) Vegetative structure

ii) T. S. of main axis

iii) Reproductive structure male and female conceptacles (P.S.)

C. *Aspergillus*

i) Structure of thallus: mycelium,

ii) Reproductive structures asexual (Conidiophore and Conidia)

D. *Agaricus*

i) Structure of basidiocarp

ii) Reproductive structures: basidia and basidospores (V. S. of Gill)

Practical -7: Study of morphology of root and stem modifications as per theory.

Practical – 8 : Study of

a) Parts of leaf
b) Types of stipules
c) Types of leaf
d) Types of phyllotaxy
e) Types of venation
f) Modifications of leaf as per theory

Practical – 9 : Study of types of inflorescence as per theory.

Practical – 10 : Study of

a) Calyx – types of calyx as per theory
b) Corolla – forms of corolla as per theory
c) Types of aestivation

Practical -11: Study of

a) Androecium – Cohesion and Adhesion
b) Gynoecium– types of placentation.

Practical -12: Study of types of fruits as per theory.

Submission: 1. Excursion tour report

Note: Short or long excursion tour and visit to any botanical garden are compulsory.

Dr. Annasaheb G. D. Bendale Mahila Mahavidyalaya, Jalgaon

Department of Botany

Academic Year 2023-24

Attendance of Excursion Tour (Visit to Agricultural Research Centre, Pal)

Class: F. Y. B.Sc. CBOT 103 : Practical **Date: 07/10/2023**

Sr. No.	Name of the Students	Roll No.	Sign.
1)	LAD RUTUJA CHANDRAKANT		
2)	Shah Saba Nasr2		
3)	Payal Sanjay Sonawane		
4)	Neha Hemant Chaudhari		
5)	Gayatri S. Patil		
6)	Dimple D. Bhole		

लेवा एज्युकेशनल युनियन संचलित
डॉ. अण्णासाहेब जी. डी. बेंडाळे महिला महाविद्यालय, जळगाव
संलग्न : कवयित्री बहिणाबाई चौधरी उत्तर महाराष्ट्र विद्यापीठ, जळगाव (महाराष्ट्र)
नॅक पूनर्मूल्यांकित 'अ' श्रेणी (३.१२ सी.जी.पी.ए.)
(तिसरी फेरी), आय.एस.ओ.९००१:२०१५ मानांकित

Estd. : 1984

Lewa Educational Union's
Dr. Annasaheb G. D. Bendale Mahila Mahavidyalaya, Jalgaon
Affiliated to Kavayitri Bahinabai Chaudhari North Maharashtra University Jalgaon (M.S.)
NAAC Re-Accredited 'A' Grade (3.12 CGPA) (3rd Cycle),
ISO 9001: 2015 Certified

Prof. Gauri M. Rane
(M.Sc.Ph.D.)
Principal

Department of Botany

Academic Year 2023-24

Name of the Activity: Excursion Tour

Date the Activity: 07/10/2023

Venue: Agricultural Research Centre, Pal, District Jalgaon

Brief Summary:

Department of Botany has organized a Botanical tour to Agricultural Research Centre, Pal, District Jalgaon. Fifteen students of first year, second year and third year Botany along with two faculty members visited the centre on 7th October 2023. During this visit students get very valuable information and practical training of various plant breeding techniques, tissue culture, vermi-composting and Mushroom cultivation. They also visited Green house where *in vitro* regenerated plants were kept for hardening. Students collected different forms of algae and aquatic fungi from *Suki* River. Students visited the orchards of sapota, custard apple, mango, etc.

Number of Participants: 15

Head
Department of Botany
Dr.Annasaheb G.D.Bendale
Mahila Mahavidyalaya, Jalgaon


कृषि विज्ञान केंद्र,पाल (जळगांव-१)


महाराष्ट्र मुक्त विद्यापीठ, नाशिक
कृषि शिक्षण केंद्र
कृषि विज्ञान केंद्र