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**THE NATIONAL COLLEGE, BASAVANAGUDI, BANGALORE -04
AUTONOMOUS**

DEPARTMENT OF BOTANY

BOS

24TH JUNE 2015

ACADEMIC YEAR 2015 -16

Academic Year 2015 – 2016

Meeting Notice

24.06.2015

To
The BOS member

Dear Sir/Madam

Subject: Meeting of the Board of Studies in Botany.

This is to inform you that the Board of Studies Meeting in Botany is scheduled on 12-06-2015 at 11 PM in the department of Botany, National College, Basavanagudi, Bengaluru – 04.

I request you to make it convenient to attend the meeting.

Agenda

- Discussion of B Sc I years Syllabus.

Thanking you

Yours faithfully

Chairperson
D E Murthy Rao



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THE NATIONAL DEGREE COLLEGE (AUTONOMOUS)

Vani Vilas Road, Basavanagudi, Bangalore-560 004

DEPARTMENT OF BOTANY

Date...1.7.15

PROCEEDINGS OF THE BOARD OF STUDIES MEETING IN BOTANY HELD ON 1ST JULY 2015.

The meeting of the Board of studies was held in the Department of Botany on 1st July 2015 at 11 am to discuss, ratify and seek expertise to frame the syllabus for the first and second semester of the 3 year B Sc degree course.

The meeting was convened specially in view of the Choice based Credit System that would come into effect from the ensuing academic year 2015-16.

The meeting commenced with **Prof. D.E. Murthy Rao** – Head Department of Botany in the chair, **Dr. K.P.Srinath** – Department of Botany, Bangalore University as the University nominee. **Dr.Mamatha** – Head Department of Botany, Government Degree College, Chennapatna, **Prof.Amrithalakshmi** – Head Department of Botany, Government Science College, Bengaluru and **Prof.Sudha Sandilya** – Department of Botany, Vijaya College, Bengaluru were the external members as subject experts.

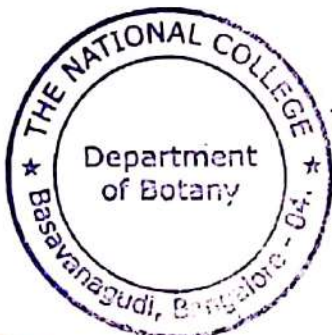
The Board Members comprehensively and meticulously discussed the syllabus for first and second semester of the B Sc degree course before approving the same. They also felt the syllabus was apt and compatible that will cater the present day natural science students.


The question paper pattern both theory and practicals was thoroughly discussed and finalized.

The mandatory and inter disciplinary subjects that would be introduced in the subsequent semesters was also finalized.

The approved syllabus will be in force from this academic year 2015-2016 and will remain unchanged till the next BOS meeting.

The meeting concluded with a vote of thanks.




Head
Department of Botany
The National College
Basavanagudi,
Bangalore-560 004.

THE NATIONAL DEGREE COLLEGE

(AUTONOMOUS)

Basavanagudi, Bengaluru-560004

CURRICULUM FOR THE SUBJECT OF BOTANY AS AN ELECTIVE SUBJECT FOR
THREE – YEAR DEGREE COURSE B.Sc(CBZ)

BOARD OF STUDIES IN BOTANY - (2015-2016)

1. D.E Murthy Rao

Head Department of Botany

The National College, Basavanagudi, Bangalore – 560 004.


Chairman

2. Amritalakshmi K

Head Department of Botany


Government Science College, Bengaluru – 560 001


Member
(Subject Expert)

3. Dr.Mamatha

Head Department of Botany

Government Degree College
Channapatna.


Member
(Subject Expert)

4. K. Jagadamba

Department of Botany

The National College

Basavanagudi, Bengaluru- 560 004.


Member

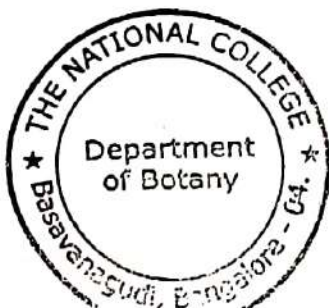
5. N.L.Vijayalakshmi


Department of Botany

The National College

Basavanagudi, Bengaluru- 560 004.


Member




Head
Department of Botany
The National College
Basavanagudi,
Bengaluru-560 004.

2015-2016

The I & II semester syllabus was taken for discussion.

**THEORY – 1 YEAR
I SEMESTER PAPER -I**

MODULE I – MICROBIOLOGY & VIROLOGY: 15 HRS

MICROBIOLOGY: Introduction, History & Scope (Anton Von Leeuwenhook, Louis Pasteur, Robert Koch, Alexander Fleming & F.W Twort)

Application of Microbiology – Agriculture, Medicine & industry.

VIROLOGY: General characteristics, Classification & Transmission of Viruses.

Structure & Multiplication of T4 phage, TMV & Gemini virus.

Structure & Multiplication of HIV virus, H1N1 & Ebola virus

Viroids & Prions

MODULE II – CELLULAR PROKARYOTES – I 15 HRS

BACTERIA – Introduction & General characteristics.

Bacterial cell ultrastructure – outer envelope, cell wall, cell membrane, composition of cytoplasm, nucleoid, plasmids, flagella & pili, difference between Gram +ve & -ve.

Morphology (E. coli) locomotion, nutrition, reproduction, sporulation (Bacillus subtilis) & sexuality in bacteria.

Economic importance of bacteria

MODULE III – CELLULAR PROKARYOTES – II CYANOBACTERIA: 15 HRS

Morphology, general characteristics, classification & affinity with bacteria.

Cyanobacterial cell structure (with emphasis on thylakoid systems, storage granules, heterocyst & akinetes).

Study of thallus & life cycle in Gloeocapsa, Spirulina, Scytonema & Anabaena.

Importance of cyanobacteria

Mycoplasma: Structure, nature & diseases.

MODULE IV – PHYCOLOGY 15 HRS

Introduction to algae.

General characteristics- pigmentation, thallus organization & reproduction.

Classification of algae (Prescott).

Study of structure & life cycle of Chlamydomonas, Oedogonium, Ectocarpus, Diatoms & Polysiphonia.

10 hrs

Economic Importance of algae.

The syllabus was appreciated by the members. Prof D.E Murthy Rao suggested to introduce Ebola virus and Anabaena in the syllabus.

II SEMESTER – Paper II

MODULE V – CELL BIOLOGY

15 HRS

Ultrastructure of a Plant cell

Chromosomes – Morphology, Ultra structure, shape, number; study of Polytene & Lampbrush chromosomes.

Cell cycle & Mitosis.

Meiosis & Sexual Cycle.

MODULE VI – MYCOLOGY

15 HRS

Introduction to fungi

General characteristics – thallus organization, classification (Alexopoulos & Mims) and nutrition.

Study of Albugo, Penicillium, Peziza & Puccinia.

A brief study of lichens.

Fungi as model organisms: Structure, life cycle and genetics of yeasts. (Haplodiplobiontic life cycle)

[Saccharomyces cerevisiae & Shizosaccharomyces Pome).

Economic Importance of fungi.

MODULE VII – PLANT PATHOLOGY

15 HRS

Symptomatology & Etiology of plant diseases.

Study of symptoms, pathogen, etiology, mode of infection & control measures of the following diseases: Tikka disease, Sandal spike disease, Blast disease of Paddy, Coffee Rust, Smut of Sorghum and Red rot of Sugarcane.

Fungicides & their importance with emphasis on their impact on environment & health.

Biopesticides – general account.

MODULE VIII – BRYOPHYTA

15 HRS

General account & Classification (Smith).

Structure, Reproduction and life cycle of Marchantia, Anthoceros, Funaria.

Phylogenetic considerations & importance.

The syllabus was appreciated by the members and did not suggest any changes.

Curriculum Design:

Course Matrix

Semester I							
Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

Semester II							
Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

Semester III							
Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

Semester IV							
Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

Semester V							
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Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

Paper VI							
Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

Semester VI (P-VII)							
Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

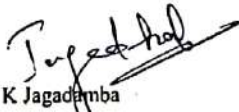
Paper VIII							
Part	Paper	Title	Hours	Marks			Credits
				IA	Exam	Total	
Part-2			4	30	70	100	4
			3	15	35	50	1
Total Marks & Credits							

The following are the BOE members approved by the Board:

Sl.No	Name of the Members	Address
1.	Dr H Gokul	Associate Professor, The National College, Basavanagudi, Bengaluru.
2.	Prof D E Murthy Rao	Associate Professor, The National College, Basavanagudi, Bengaluru.
3.	Prof K Jagadamba	Associate Professor, The National College, Basavanagudi, Bengaluru.
4.	Prof N L Vijayalakshmi	Associate Professor, The National College, Basavanagudi, Bengaluru.
5.	Dr Tharakeshwari M	Assistant Professor, The National College, Basavanagudi, Bengaluru.
6.	Dr N Mamatha	Assistant Professor, G F G C, Vijayanagar, Bengaluru.
7.	Dr B L Manjula	Assistant Professor, K L E College, Rajajinagar, Bengaluru - 10
8.	Prof Sudha N	Assistant Professor, Govt. Science College, Nrupathunga Road, Bengaluru 01
9.	Dr Shiva kumara	HOD, Department of Biological Science, IISC Bengaluru.
10.	Prof Amrutha Lakshmi	Associate Professor, Govt. Science College, Nrupathunga Road, Bengaluru 01
11.	Prof N Sarvamangala	Associate Professor, G F G C, Yelahanka, Bengaluru
12.	Prof Y B Jayashree	Assistant Professor, HOD, Dept, of Botany, N M K R V College, Jayanagar, Bengaluru - 78
13.	Prof Sharmishita Dutta	Assistant Professor, Maharani Amanni College for Women, Malleshwaram, Bengalurr.

The following are the List of External Examiners approved by the Board:

Sl.No	Name of the Members	Address
01.	Dr Shalini B U	Associate Professor, Mount Carmel College, Vasanth nagara, Bengaluru-52
02.	Dr Savitha	Assistant Professor, Mount Carmel College, Vasanth nagara, Bengaluru-52
03.	Dr Mamatha	Assistant Professor, G F G C, Vijayanagar, Bengaluru.
04.	Prof Sharmishta Dutta	Assistant Professor, Maharani Amanni College for Women, Malleshwaram, Bengalurr.
05.	Dr Venkateshappa	Associate Professor, East West College, Rajajinagar, Bengaluru - 10
06.	Roopashree M G	Lecturer, K L E College, Rajajinagar, Bengaluru - 10.
05.	Prof Sudha N	Assistant Professor, Govt. Science College, Nrupathunga Road, Bengaluru 01
06.	Prof Sumanth	Lecturer, Govt. Science College, Nrupathunga Road, Bengaluru 01
07.	Prof Vijaya Kumar	Assistant Professor, N M K R V College, Jayanagar, Bengaluru - 78
08.	Prof N Sarvamangala	Associate Professor, G F G C, Yelahanka, Bengaluru.
09.	Dr Rekha	Associate Professor, Govt. Science College, Nrupathunga Road, Bengaluru -1
10.	Prof Sharada	Lecturer, Govt. Science College, Nrupathunga Road, Bengaluru -1
11.	Prof Kavya	Lecturer, Maharani Amanni College for Women, Malleshwaram, Bengalur.
12.	Dr Reema Kumari	Assistant Professor, Maharani Amanni College for Women, Malleshwaram, Bengalur.


K Jagadamba

Chairperson

Board of Studies in Botany

The National College, Autonomous,

Basavanagudi, Bengaluru - 04