

Rayat Shikshan Sanstha's

**D. P. Bhosale College, Koregaon**

**Autonomous (Self-Financed) Short-Term Course in**

**“PHYTOMORPHOLOGICAL STUDIES IN  
TAXONOMIC BOTANY”**

Organized by

**Department of Botany**

**Dr. S. M. Shendage**

Head

Department of Botany,  
D. P. Bhosale College,  
Koregaon, Satara

**(2019-2020)**

Rayat Shikshan Sanstha's

**D. P. Bhosale College, Koregaon**

**DEPARTMENT OF BOTANY**

**SHORT-TERM COURSE (2019-2020)**

**PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY**

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**DEPARTMENT OF BOTANY**

**SHORT-TERM COURSE (2019-2020)**


**PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY**


**NOTICE**

**Date:** 18<sup>th</sup> November, 2019

All the students of B. Sc. - II are hereby informed that the Department of Botany is conducting a self-financed Three-month Short-Term Course on "**Phytomorphological Studies in Taxonomic Botany**" from 1<sup>st</sup> December 2019 to 28<sup>th</sup> February, 2020.

Interested students register their names to Miss. R. P. Bhosale madam before 27<sup>th</sup> November, 2019.

  
Head  
Department of Botany  
D. P. Bhosale College, Koregaon

  
**Principal**  
D. P. Bhosale College,  
Koregaon, Satara

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- |                               |  |             |
|-------------------------------|--|-------------|
| <b>1. Eligibility:</b>        | XII Std. Pass                              |             |
| <b>2. Duration of Course:</b> | 3 Months                                   |             |
| <b>3. No. of Students:</b>    | 20   |             |
| <b>4. Admission fees:</b>     | --   |             |
| <b>5. Examination:</b>        | Theory                                     | (50 Marks)  |
|                               | Practical                                  | (40 Marks)  |
|                               | Submission/ Excursion report               | (10 Marks)  |
|                               | Total marks                                | (100 Marks) |
| <b>6. Faculty:</b>            | Dr. S. K. Kamble                           |             |
|                               | Dr. K. H. Patil                            |             |
|                               | Miss. R. P. Bhosale                        |             |
|                               | Miss. S. B. Patil                          |             |
| <b>7. Co-ordinator:</b>       | Dr. S. K. Kamble                           |             |
| <b>8. Head:</b>               | Dr. S. M. Shendage                         |             |
| <b>9. Director:</b>           | Principal, D. P. Bhosale College, Koregaon |             |

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**SYLLABUS**

**Theory**

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**UNIT – 1:** (3 Lectures)

**Introduction:** Objectives, Principles of Taxonomy, Types of Classification systems (Artificial, Natural, Phylogenetic)

**UNIT – 2:** (9Lectures)

Morphological characteristics of Plant: Root & its modifications; Stem and its modifications; Leaf – Types, venation, phyllotaxy, shape; Flower – Parts of flower, importance of flowers, types of inflorescence (indeterminate, determinate, special).

**UNIT – 3:** (5 Lectures)

Bentham and Hooker's system of classification, Introduction to taxonomic literature (Flora)

**UNIT – 4:** (3 Lectures)

Glossary of all botanical terms, importance and advantages of morphological studies.

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SYLLABUS

### Practicals

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**Practicals –**

**(10 Lectures)**

**Practical 1.** Study of leaf Morphology

**Practical 2.** Study of types of stem modifications

**Practical 3** Morphological study of floral whorls.

**Practical 4.** Study of inflorescence- Raceme

**Practical 5.** Study of inflorescence- Cyme

**Practical 6.** Study of special types of inflorescence

**Practical 7.** Identification of plant specimens using available flora (any 5).

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**PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY**

**BOARD OF STUDIES PANEL**

**INTERNAL EXPERT**

<b>Sr. No.</b>	<b>Name of Faculty</b>
1.	Dr. S. M. Shendage
2.	Dr. S. K. Kamble
3.	Dr. K. H. Patil
4.	Miss. R. P. Bhosale
5.	Miss. S. B. Patil

**EXTERNAL EXPERT**

<b>Sr. No.</b>	<b>Name of Faculty</b>
1.	<b>Dr. U. S. Pawar</b> Head, Department of Botany. Amdar Shashikant Shinde Mahavidyalay, Medha, District Satara – 415012 Maharashtra

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**PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY**

(1<sup>st</sup> December 2019 to 28<sup>th</sup> February, 2020)

**TIME-TABLE**

Time	DAY		
	01.45 – 02.30 pm	<b>Lecture</b>	<b>Monday</b> (Batch - A)
01.30 – 2.30 pm	<b>Practical</b>	<b>Tuesday</b> (Batch - A)	<b>Saturday</b> (Batch - B)

  
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**SYLLABUS DISTRIBUTION**

(1<sup>st</sup> December 2019 to 28<sup>th</sup> February, 2020)

**Lectures: 30** (Theory: 20 and Practical: 10)

Sr. No.	Theory	Name of Faculty
1.	<b>Introduction:</b> Objectives, Principles of Taxonomy, Types of Classification systems (Artificial, Natural, Phylogenetic)	Dr. S. M. Shendage
2.	Morphological characteristics of Plant: Leaf – types of leaves (simple, compound), leaf arrangements, leaf venation, leaf shapes, leaf tips, bases and margins; Stem – parts of stem, types of stem, function of stem, characteristics of stem, modifications of stem.	Dr. S. K. Kamble
3.	Morphological characteristics of Plant: Flower – Parts of flower, importance of flowers, types of inflorescence (indeterminate, determinate, special).	Dr. K. H. Patil
4.	Introduction to Linnaeus's system of classification, Bentham and Hooker's system of classification, Cronquist's system of classification; introduction to floras and monographs, identification of plant specimens.	Miss. R. P. Bhosale
5.	Glossary of all botanical terms, importance and advantages of morphological studies.	Miss. S. B. Patil
	<b>Practicals</b>	<b>Name of Faculty</b>
1.	Morphological study of leaf and stem.	Dr. K. H. Patil
2.	Morphological study of flower parts.	Miss. R. P. Bhosale
3.	Morphological study of inflorescence.	Miss. S. B. Patil
4.	Identification of plant specimens using artificial and natural system of classification.	Miss. S. B. Patil

  
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PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY

(1<sup>st</sup> December 2019 to 28<sup>th</sup> February, 2020)

**LIST OF STUDENTS**

Sr. No.	Name of Students
1.	Ghadge Mayuri Mahendra
2.	Jadhav Akansha Anandrao
3.	Jadhav Dipti Dipak
4.	Kadam Sampada Vijay
5.	Lokane Sejal Pandurang
6.	Pathan Sana Firoj
7.	Phadtare Pratiksha Ganpat
8.	Gole Prathamesh Dipak
9.	Pawar Sayali Gopichand
10.	Phadtare Ankita Ajit
11.	Phadtare Pratiksha Dhanajay
12.	Shinde Asha Ramchandra
13.	Shirke Neha Ashok
14.	Tripate Omkar Rajendra
15.	Tingare Gayatri Sudhir
16.	More ShivamTanaji
17.	Matkar Dinesh Ashok
18.	Jagdale Mahesh Sopan
19.	Chavan Samadhan Srikant
20.	Disale Rohan Ramesh

  
Head

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**PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY**

**Theory Examination: March 2019-2020**

**Total Marks: 50**

**Date: 16<sup>th</sup> March, 2020, Time: 11.00 am – 1:00 pm**

- Instructions:**
1. All questions are compulsory
  2. Draw neat and labelled diagrams wherever necessary.
  3. Figures to the right indicate full marks.

**Q. 1 Write short notes on:**

**(30 Marks)**

- i) Types of Classification systems in plants.
- ii) Types of inflorescence.
- iii) Parts of flower and importance of flower.
- vi) Objectives and principles of taxonomy.
- v) Types, function, and modifications of stem.
- vi) Importance and advantages of morphological studies.

**Q. 2 Write in detail the morphological characteristics of leaf with reference to types, arrangement, venation, shapes, base and margins.**

**(20 Marks)**

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**PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY**

**Practical Examination: March 2019-2020**

**Total Marks: 50**

**Date: 17<sup>th</sup> March, 2020 Time: 11.00 am – 1:00 pm**

- Instructions:**
1. All questions are compulsory
  2. Draw neat and labelled diagrams wherever necessary.
  3. Figures to the right indicate full marks.

**Q 1.** Press the given plant specimens. **(10 Marks)**

**Q 2.** Identify the given plant specimens using the available taxonomic literature. **(10 Marks)**

**Q 3.** Mount and label the given plant specimen. **(10 Marks)**

**Q 4.** Spotting – **(10 Marks)**

A. Identify the object used in herbarium preparation methodology.

B. Identify the object used for collection.

C. Identify the type of taxonomic literature used in identification of plant specimen.

D. Identify the object used in herbarium preparation methodology.

E. Identify the object used in herbarium preparation methodology.

**Q 5.** Submission of herbarium specimens. **(10 Marks)**

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RESULTS

Sr. No.	Name of Student	Theory (20)	Practical (20)	Internal (10)	Total (50)	Grade
1	Ghadge Mayuri Mahendra	12	15	08	35	A
2	Jadhav Akanksha Anandrao	12	15	07	34	B
3	Jadhav Dipti Dipak	15	17	09	41	O
4	Kadam Sampada Vijay	11	13	07	31	B
5	Lokane Sejal Pandurang	14	16	08	38	A
6	Pathan Sana Firoj	19	18	09	46	O
7	Phadtare Pratiksha Ganpat	10	11	08	29	C
8	Gole Prathmesh Dipak	13	14	07	34	B
9	Pawar Sayali Gopichand	17	17	09	43	O
10	Phadtare Ankita Ajit	17	18	09	44	O
11	Phadtare Pratiksha Dhananjay	14	16	08	38	A
12	Shinde Asha Ramchandra	16	18	09	43	O
13	Shirke Neha Ashok	16	17	09	42	O
14	Tripate Omkar Rajendra					AB
15	Tingare Gayatri Sudhir	12	15	07	34	B
16	More Shivam Tanaji	12	15	08	35	A
17	Matkar Dinesh Ashok	09	11	06	26	C
18	Jagdale Mahesh Sopan	08	10	06	24	D
19	Chavan Samadhan Srikant	09	08	07	24	D
20	Disale Rohan Ramesh	10	09	07	26	C

  
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**PHYTOMORPHOLOGICAL STUDIES IN TAXONOMIC BOTANY**

**OUTCOME**

Morphological studies play an important role in identifying plants. It provides us with the information about the range of variations found in different species of plants. Morphology provides us with the basis for the understanding of function, taxonomy, heredity, ecology, development and other branches of biology, therefore gives us a platform to study other branches.

Department of Botany conducted a Short-Term Course for students on “**Phytomorphological Studies in Taxonomic Botany**”. Twenty students enrolled for this Short-Term Course. The students not only learnt about various morphological characteristics of plants, but also learnt to classify plants on the basis of artificial and natural classification. This Short-Term course will benefit students to learn and classify local flora.

  
Head  
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D. P. Bhosale College, Koregaon



RAYAT SHIKSHAN SANSTHA'S

**D. P. BHOSALE COLLEGE, KOREGAON**

DIST-SATARA, MAHARASHTRA, INDIA-415501



Certificate/ Add-On/ Value added Certificate

2019-20

## Certificate

This is to certify that, Mr./Ms./Miss.....  
.....participated in the Certificate/ Add-On/ Value added Certificate on  
“Certificate Course in Cytomorphological Studies in Taxonomy ” Organized  
by Department of Botany, D. P. Bhosale College, Koregaon, Satara  
(Maharashtra).



**Coordinator**

**Principal**