

**B.Sc. – VI Semester**

**BOTANY**

**Govt. Digvijay Autonomous P.G. College, Rajnandgaon, C.G.**  
**Bachelor of Science (B.Sc.) Four Years UG Programme (FYUP)**

## Botany

### 2025-26

Year	Sem.	Course Type	Course Title	Credit	IA	ESE	Max Marks
First Year	I Sem.	DSC-01	Elementary Botany	3+0+0	30	70	100
		DSC-01-LAB	Elementary Botany – LAB	0+0+1	15	35	50
		GE-01	Elementary Botany	3+0+0	30	70	100
		GE-01-LAB	Elementary Botany – LAB	0+0+1	15	35	50
	II Sem.	DSC-02	Microbes and Thallophyta	3+0+0	30	70	100
		DSC-02-LAB	Microbes and Thallophyta - LAB	0+0+1	15	35	50
		GE-02	Microbes and Thallophyta	3+0+0	30	70	100
		GE-02-LAB	Microbes and Thallophyta - LAB	0+0+1	15	35	50
		SEC-01	Gardening and Floriculture	0+0+2	10	40	50
Second Year	III Sem.	DSC-03	Archegoniate and Fossils	3+0+0	30	70	100
		DSC-03-LAB	Archegoniate and Fossils – LAB	0+0+1	15	35	50
		DSE- 01	Natural resources and management	3+0+0	30	70	100
		DSE-01-LAB	Natural resources and management- LAB	0+0+1	15	35	50
		VAC- 01	Herbal Plants & Human Health	2+0+0	10	40	50
	IV Sem.	DSC- IV	Angiosperms	3+0+0	30	70	100
		DSC- IV- LAB	Angiosperms- LAB	0+0+1	15	35	50
		DSE-02	Microbiology and Phytopathology	3+0+0	30	70	100
		DSE-02-LAB	Microbiology and Phytopathology- LAB	0+0+1	15	35	50
		SEC- 02	Flower Decoration	0+0+2	10	40	50

*(Handwritten signature)*

Third Year	V Sem.	DSC-05	Plant Physiology	3+0+0	20	80	100
		DSC-05-LAB	Plant Physiology- LAB	0+0+1	10	40	50
		DSE-03	Plant Metabolism	3+0+0	20	80	100
		DSE-03-LAB	Plant Metabolism- LAB	0+0+1	10	40	50
		DSE-04	Plant Diseases	3+0+0	20	80	100
		DSE-04-LAB	Plant Diseases-LAB	0+0+1	10	40	50
		SEC-03	Biofertilizer and Biopesticides	0+0+2	10	40	50
	VI Sem.	DSC-06	Plant Pathology	3+0+0	20	80	100
		DSC-06-LAB	Plant Pathology-LAB	0+0+1	10	40	50
		DSE-05	Molecular Biology and Plant Biotechnology	3+0+0	20	80	100
		DSE-05-LAB	Molecular Biology and Plant Biotechnology-LAB	0+0+1	10	40	50
		DSE-06	Economic Botany	3+0+0	20	80	100
		DSE-06-LAB	Economic Botany-LAB	0+0+1	10	40	50
		SEC-04	Mushroom Culture Technology-Project	0+0+2	10	40	50
Fourth Year Bachel or of Honors	VII Sem.	DSC-07	Ecology and Phytogeography	3+0+0	20	80	100
		DSC-07-LAB	Ecology and Phytogeography-LAB	0+0+1	10	40	50
		DSE-07	Instrumentation and Biochemical Technology	3+0+0	20	80	100
		DSE-07-LAB	Instrumentation and Biochemical Technology-LAB	0+0+1	10	40	50
		DSE-08	Biosystematics and Biodiversity	3+0+0	20	80	100
		DSE-08-LAB	Biosystematics and Biodiversity-LAB	0+0+1	10	40	50
		DSE-09	Plant Breeding and Seed Technology	3+0+0	20	80	100
		DSE-09-LAB	Plant Breeding and Seed Technology-LAB	0+0+1	10	40	50
		GE-	Growth and Stress Physiology	3+0+0	20	80	100
		GE-LAB	Growth and Stress Physiology-LAB	0+0+1	10	40	50
	VIII Sem	DSC-08	Molecular Biology and Biostatistics	3+0+0	20	80	100
		DSC-08-	Molecular Biology and	0+0+1	10	40	50



Fourth Year Bachelor of Honors with Research		LAB	Biostatistics- LAB				
		DSE-10	Plant Biotechnology and Crop Improvement	3+0+0	20	80	100
		DSE-10-LAB	Plant Biotechnology and Crop Improvement-LAB	0+0+1	10	40	50
		DSE-11	Applied Botany and Intellectual Property Right (IPR)	3+0+0	20	80	100
		DSE-11-LAB	Applied Botany and Intellectual Property Right (IPR)-LAB	0+0+1	10	40	50
		DSE-12	Biochemistry and Enzymology	3+0+0	20	80	100
		DSE-12-LAB	Biochemistry and Enzymology-LAB	0+0+1	10	40	50
		DSE-13	Bioinformatics and Genetic Technology	3+0+0	20	80	100
		DSE-13-LAB	Bioinformatics and Genetic Technology-LAB	0+0+1	10	40	50
	VII Sem.	DSC-07	Ecology and Phytogeography	3+0+0	20	80	100
		DSC-07-LAB	Ecology and Phytogeography-LAB	0+0+1	10	40	50
		DSE-07	Research Methodology and Ethics	4+0+0	20	80	100
		DSE-08	Biosystematics and Biodiversity	3+0+0	20	80	100
		DSE-08-LAB	Biosystematics and Biodiversity-LAB	0+0+1	10	40	50
		DSE-09	Plant Breeding and Seed Technology	3+0+0	20	80	100
		DSE-09-LAB	Plant Breeding and Seed Technology-LAB	0+0+1	10	40	50
		GE-	Growth and Stress Physiology	3+0+0	20	80	100
		GE-LAB	Growth and Stress Physiology-LAB	0+0+1	10	40	50
	VIII Sem	DSC-08	Molecular Biology and Biostatistics	3+0+0	20	80	100
		DSC-08-LAB	Molecular Biology and Biostatistics- LAB	0+0+1	10	40	50
		DSE-10	Plant Biotechnology and Crop Improvement	3+0+0	20	80	100
		DSE-10-LAB	Plant Biotechnology and Crop Improvement-LAB	0+0+1	10	40	50
		Research Project/ Dissertation		12			



**B. Sc. – VI Semester (BOTANY)**

**2025-26**

<b>Session: 2025-26</b>	<b>Program: B.Sc.</b>
<b>Semester: VI</b>	<b>Subject: Botany</b>
<b>Course type: DSC/ Core course- 06</b>	<b>Course code:</b>
<b>Title of DSC/Core Course- 06</b>	<b>Plant Pathology</b>
<b>Credits: 03</b>	<b>Lecture: 45</b>
<b>Maximum Marks: 100</b>	<b>Minimum Passing Marks: 40</b>

<b>Title</b>	<b>Plant Pathology</b>
<b>Course outcomes</b>	<ul style="list-style-type: none"><li>➤ Student will know about general terminology &amp; principles of plant pathology.</li><li>➤ Study of pathogens, symptoms and mode of infection.</li><li>➤ Know about epidemiology of diseases.</li><li>➤ Study about concept of post-harvest diseases.</li></ul>
<b>Learning outcomes</b>	<p>The student will:</p> <ul style="list-style-type: none"><li>➤ Understand the principles of plant pathology.</li><li>➤ Understand the symptoms and causative agent of various diseases.</li><li>➤ Understand the mode of action and epidemiology of various diseases.</li><li>➤ Learn about post-harvest diseases.</li></ul>

**B. Sc. VI Semester (BOTANY)**  
**2025-26**  
**DSC/ Core Course -06**

Title			Plant Pathology
Units	Lectures	Credits	Syllabus
I	12	3	Terminology in Plant Pathology, concept of disease, cause of plant disease, classification of plant diseases, Koch's postulates. Growth, reproduction, survival and dispersal of plant pathogens. Factors influencing infection. General Principles of plant pathology.
II	10		Study of Symptoms, Mode of Infection and epidemiology of diseases. Diseases due to Fungi: Rust disease, Smut disease, Downy mildew, Leaf blight, Tikka disease. Diseases due to Bacteria: Tundu disease, Citrus canker, Angular leaf spot, Crown gall of stone fruit.
III	13		Study of Symptoms, Mode of Infection and epidemiology of diseases. Diseases due to Nematodes: Root knot, Ear cockles of wheat. Diseases due to Mycoplasma: Sandal spike, Little leaf of Brinjal. Diseases due to Virus: Leaf curl of Papaya, Tobacco Mosaic of Tobacco.
IV	10		Concept of post-harvest diseases, definitions, importance with reference to environment and health. Types of post-harvest problems both by biotic and abiotic causes. Principals of plant disease control: Chemical control, Biological control, Plant Quarantine. Plant disease epidemiology, disease forecasting and disease assessment. Principles and methods of plant disease management.
Total	45 Lectures	3 Credits	

**Evaluation Scheme for Theory**

Exam Type	Marks
End Term Exam	80
Internal Exam	20
Total marks	100

*ECR* *PP*



**B. Sc. VI Semester (BOTANY)**  
**2025-26**

**DSC/ Core Course Practical -06: Plant Pathology-LAB**

**Practical Scheme (1 Credit)**

1. Symptomatology	10
2. Epidemiology	10
3. Plant disease control	10
4. Spotting	10
5. <i>Viva-voce</i>	05
6. Sessional	05

**Total Marks 50**

**B. Sc. – VI Semester (BOTANY)**

**2025-26**

<b>Session: 2025-26</b>	<b>Program: B.Sc.</b>
<b>Semester: VI</b>	<b>Subject: Botany</b>
<b>Course type: DSE – 05</b>	<b>Course code:</b>
<b>Title of DSE –05</b>	<b>Molecular Biology and Plant Biotechnology</b>
<b>Credits: 03</b>	<b>Lecture: 45</b>
<b>Maximum Marks: 100</b>	<b>Minimum Passing Marks: 40</b>

<b>Title</b>	<b>Molecular Biology and Plant Biotechnology</b>
<b>Course outcomes</b>	<ul style="list-style-type: none"><li>➤ The objective of the present course content is to provide a foundation and background in eukaryotic genome structure (including nuclear and organellar), and regulatory mechanisms.</li><li>➤ Know about nucleic acid (DNA/RNA), structure and functions.</li><li>➤ This course would provide students with an understanding of principles and techniques of plant tissue culture.</li><li>➤ Know about micropropagation, and androgenesis process.</li><li>➤ Know about secondary metabolite production and cryopreservation.</li></ul>
<b>Learning outcomes</b>	<p>The students will learn about:</p> <ul style="list-style-type: none"><li>➤ Learn about nucleic acid (DNA/RNA), structure and functions.</li><li>➤ They understand the principle mechanisms of genome replication, maintenance, function and regulation of expression.</li><li>➤ Student will understand the basic properties of plant cell and with apply the basic knowledge of PTC in various fields for conservation, medicine, product development etc.</li><li>➤ Understand the concepts, tools and techniques related to in vitro plant tissue culture &amp; micropropagation.</li><li>➤ Learn about secondary metabolite production and cryopreservation technique.</li></ul>



**B. Sc. VI Semester (BOTANY)**  
**2025-26**  
**DSE – 05**

Title			Molecular Biology and Plant Biotechnology
Units	Lectures	Credit	Syllabus
I	13	3	Nucleic acids: Structure of nitrogenous bases; Structure and function of nucleotides; Types of nucleic acids; Structure of A, B, Z types of DNA; Types of RNA; Structure of tRNA. DNA replication: Types of DNA replication, Enzymes involved in DNA replication.
II	12		Mechanism of Transcription: Transcription in prokaryotes and eukaryotes; Regulation of transcription in prokaryotes and eukaryotes. Translation in Prokaryotes and eukaryotes. Protein Synthesis: Various steps in protein synthesis, proteins involved in initiation, elongation and termination of polypeptides.
III	10		Plant Tissue Culture: Historical perspective; Aseptic tissue culture techniques, Composition of media; Nutrient and hormone requirements (role of vitamins and hormones). Totipotency; Organogenesis; Embryogenesis (somatic and zygotic). Protoplast Culture: Protoplast isolation, culture and fusion.
IV	10		Applications of Biotechnology and Applications of Plant Tissue culture, Micropropagation, Androgenesis, Secondary metabolite production, haploids, triploids and hybrids. Cryopreservation.
Total	45 Lectures	3 Credit	

**Evaluation Scheme for Theory**

Exam Type	Marks
End Term Exam	80
Internal Exam	20
Total marks	100

*CCB*

*DP*

B. Sc. VI Semester (BOTANY)  
2025-26

DSE Practical 05: Molecular Biology and Plant Biotechnology-LAB

Practical Scheme (1 Credit)

1.	Plant Tissue Culture	10
2.	Plant DNA extraction technique	10
3.	Protoplast isolation and fusion/ Qualitative test/Extraction of secondary metabolites	10
4.	Spotting	10
5.	Viva-voce	05
6.	Sessional	05

Total Marks: 50

*CAS*

*PS*



**B. Sc. – VI Semester (BOTANY)**

**2025-26**

<b>Session: 2025-26</b>	<b>Program: B.Sc.</b>
<b>Semester: VI</b>	<b>Subject: Botany</b>
<b>Course type: DSE 06</b>	<b>Course code:</b>
<b>Title of DSE- 06</b>	<b>Economic Botany</b>
<b>Credits: 3</b>	<b>Lecture: 45</b>
<b>Maximum Marks: 100</b>	<b>Minimum Passing Marks: 40</b>

<b>Title</b>	<b>Economic Botany</b>
<b>Course outcomes</b>	On completion of this course, the students will be able to: <ul style="list-style-type: none"><li>➤ To know economic importance of different plants/crops.</li><li>➤ Study the various types of plant used for different purposes such as beverages, medicine, timber, oil etc.</li><li>➤ Know about the various parts or organs of plants/crops/vegetables used in daily life.</li></ul>
<b>Learning outcomes</b>	<ul style="list-style-type: none"><li>➤ Understand core concepts of economic Botany and relate with environment, populations, communities, and ecosystems.</li><li>➤ Student will develop the knowledge about economic importance of plants.</li></ul>

*CCS* *PL*

**B. Sc. VI Semester (BOTANY)**  
**2025-26**  
**DSE- 06**

Title			Economic Botany
Units	Lectures	Credit	Syllabus
I	15	3	Botanical name, Family, Part used and Uses of following economically important plants: Food Plants: Wheat, Rice, Maize, Pearl millets, Gram. Oil Yielding Plants: Mustard, Sunflower, Groundnut, Soyabean, Coconut.
II	10		Botanical name, Family, Part used and Uses of following economically important plants: Spices: Turmeric, ginger, cinnamon, Asafoetida and Cumin. Fruit plants: Pear, Peach, Litchi.
III	10		Botanical name, Family, Part used and Uses of following economically important plants: Fiber Yielding Plants: Cotton, Jute, Sun hemp, Coir. Timber Yielding Plants: Sal, Teak, Shisham, Pine.
IV	10		Botanical name, Family, Part used and Uses of following economically important plants: Beverages: Tea. Coffee Biodiesel Plants: Jatropha, Pongamia.
Total	45 Lectures	3 Credit	

**Evaluation Scheme for Theory**

Exam Type	Marks
End Term Exam	80
Internal Exam	20
Total marks	100






**B. Sc. VI Semester (BOTANY)**  
**2025-26**  
**DSE Practical 06: Economic Botany-LAB**

**Practical Scheme (1 Credit)**

1.	Food Plants/ Oil Yielding Plants	10
2.	Spices/Fruit Plants/Fiber Yielding Plants	10
3.	Timber Yielding Plants/Beverages/Biodiesel Plants	10
4.	Spotting	10
5.	<i>Viva-voce</i>	05
6.	Sessional	05

**Total Marks: 50**





**B. Sc. – VI Semester (BOTANY)**

**2025-26**

<b>Session: 2025-26</b>	<b>Program: B.Sc.</b>
<b>Semester: VI</b>	<b>Subject: Botany</b>
<b>Course type: SEC – 04</b>	<b>Course code:</b>
<b>Title of SEC – 04</b>	<b>Mushroom Culture Technology</b>
<b>Credits: 02 Credit</b>	<b>Lecture: Project</b>
<b>Maximum Marks: 50</b>	<b>Minimum Passing Marks: 20</b>

<b>Title</b>	<b>Mushroom Culture Technology</b>
<b>Course outcomes</b>	<ul style="list-style-type: none"><li>➤ Students will know about the general account of mushrooms.</li><li>➤ Know about the nutritional and medicinal value of edible mushrooms.</li><li>➤ Study about mushroom cultivation and pure culture technique.</li><li>➤ Know about the storage and nutrition requirement for mushrooms.</li></ul>
<b>Learning outcomes</b>	<ul style="list-style-type: none"><li>➤ Students will learn about the mushroom, its cultivation and pure culture technique.</li><li>➤ Understand about medicinal importance of mushrooms.</li><li>➤ Learn about nutritional value and edible mushrooms.</li><li>➤ Understand the composting technology in mushroom production.</li><li>➤ Understand about storage and nutrition condition.</li><li>➤ Learn about food preparation from mushrooms.</li></ul>

*GC2* *DP*

**B. Sc. VI Semester (BOTANY)**  
**2025-26**  
**SEC – 04**

Title			Mushroom Culture Technology
Units	Lectures	Credit	Syllabus
I	8	2	Mushroom: Introduction, history. Nutritional and medicinal value of edible mushrooms; Poisonous mushrooms. Types of edible mushrooms available in India - <i>Volvariella volvacea</i> , <i>Pleurotus citrinopileatus</i> , <i>Agaricus bisporus</i>
II	7		Cultivation Technology: Infrastructure: substrates, Polythene bag, vessels, Inoculation hook, inoculation loop, low cost stove, sieves, culture rack, mushroom unit (Thatched house) water sprayer, tray, small polythene bag.
III	8		Pure culture: Medium, sterilization, preparation of spawn, multiplication. Mushroom bed preparation - paddy straw, sugarcane trash, maize straw, banana leaves. Factors affecting the mushroom bed preparation - Low cost technology, Composting technology in mushroom production.
IV	7		Storage and nutrition: Short-term storage (Refrigeration - upto 24 hours) Long term Storage (canning, pickles, papads), drying, storage in salt solutions. Nutrition - Proteins - amino acids, mineral elements nutrition - Carbohydrates, Crude fibre content, Vitamins. Food Preparation: Types of foods prepared from mushroom.
Total	30 Lectures	2 Credit	

**Evaluation Scheme for Theory**

Exam Type	Marks
End Term Exam/Project	40
Internal Exam	10
Total marks	50






**2025-26**

**Old Course**

**B.Sc. Part – III**

**BOTANY**

**B.SC.-III (BOTANY) PAPER -I**  
**(ANALYTICAL TECHNOLOGY PLANT PATHOLOGY,  
EXPERIMENTAL EMBRYOLOGY, ELEMENTARY BIOSTATISTICS,  
ENVIRONMENTAL POLLUTION AND CONSERVATION)**

**UNIT-I**

Structure, Principle and applications of analytical instrumentation.

Chromatography technique, Oven, Incubator, Autoclave, Centrifuge, Spectrophotometer

**UNIT-II**

Plant Tissue culture techniques, growth media, totipotency, protoplast culture, somatic hybrids and cybrids, micropropagation, somaclonal variations, haploid culture.

Analytical techniques: Microscopy-Light microscope, Electron microscope

**UNIT-III**

General principles of plant pathology, general symptoms of fungal, bacterial and viral diseases, mode of infection, diseases resistance and control measures, plant quarantine. A study of epidemiology and etiology of following plant diseases.

Rust diseases of wheat, Tikka diseases of ground nut, Red rot of sugar cane, Bacterial blight of rice, Yellow vein mosaic of brinjal, Little leaf of brinjal.

**UNIT-IV**

Introduction to pollution, green house gases, Ozone depletion, Dissolved oxygen, B.O.D., C.O.D.

Bio magnification, Eutrophication, Acid precipitation, Phytoremediation, Plant indicators, Biogeographical Zones of India, Concept of biodiversity, CBD, MAB, National parks and

biodiversity Hot spots, Conservation strategies, Red Data Book, IUCN threat categories, invasive species, endemic species, concept of sustainable development.

## UNIT-V

### ELEMENTARY BIOSTATISTICS:

Introduction and application of Biostatistics, measure of central tendency-Mean, Median, Mode, measures of dispersal-Standard deviation, standard error.

#### Books Recommended:

Singh, RS, *Plant Diseases*, Oxford & IBH, New Delhi.

Pandey, BP, *Plant Pathology*, S.Chand Publishing, New Delhi

Sharma, PD, *Microbiology and Plant pathology*, Rastogi Publications, Meerut

Sharma PD, *Mycology and Phytopathology*, Rastogi Publications, Meerut

Singh JS, Singh SP and Gupta, SR, *Ecology Environmental Science and Conservation*, S. Chand Publishing, New Delhi

Sharma, PD. *Ecology and Environment*, Rastogi Publications, Meerut

Bhojwani, SS and Razdan, MK, *Plant Tissue Culture: Theory and Practices*, Elsevier

Sharma AK, *Text book of Biostatistics*, Discovery Publishing House Pvt. Ltd.



(Dr. J.N. Verma)

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

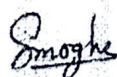


(Dr. Ranjana Shrivastava)

Proff. & Head

Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)



(Mr. Shivakant Mishra)

(Mr. Sudheer Tiwari)





**B.Sc.-III (BOTANY) PAPER –II**  
**(GENETICS, MOLECULAR BIOLOGY, BIOTECHNOLOGY AND**  
**BIOCHEMISTRY)**

**UNIT-I**

Cell and cell organelles, organization and morphology of chromosomes, giant chromosomes, cell division, Mendel's laws, gene interactions, linkage and crossing over, chromosomal aberration, polyploidy, sex linked inheritance, sex determination, cytoplasmic inheritance, gene concept: cistron, muton, recon.

**UNIT-II**

Nucleic acids, structure and forms of DNA and RNA, DNA/RNA as genetic material, replication of DNA, biochemical and molecular basis of mutation, genetic code and its properties, mechanism of transcription and translation in prokaryotes, regulation of gene expression, Operon model.

**UNIT-III**

Recombinant DNA, Enzymes in recombinant DNA technology, cloning vectors (Plasmid, Bacteriophages, Cosmids, Phagemids), gene cloning, PCR, Application of Biotechnology; G.M.Plants, Monoclonal antibodies, DNA finger printing

**UNIT-IV**

Protein: Chemical composition, primary, secondary and tertiary structure of Proteins.

Carbohydrate: general account of monosaccharides, disaccharids and Polysaccharides

Fat: Structure and properties of fats and fatty acids, synthesis and breakdown.

**UNIT-V**

ENZYMES: Nomenclature and classification, components of enzyme, theories of enzyme action, enzyme kinetics (Michaelis-Menten constant), allosteric enzymes, isozymes, Abzymes. Ribozymes, factors affecting enzyme activity.



### **Books Recommended:**

Nelson, DL, Cox, MM, Lehninger *Principles of Biochemistry*, W.H. freeman and Company, New York, USA.

Cooper, GM, *The Cell: A Molecular Approach*, ASM Press & Sunderland, Washington, D.C. Sinauer Associates, MA.

Singh BD, *Fundamental of Genetics*, Kalyani Publication

Singh BD, *Genetics*, Kalyani Publication

Gupta, PK, *Cell and Molecular Biology*, Rastogi Publications, Meerut

Singh, BD, *Biotechnology: Expanding Horizons*, Kalyani publications

Gupta, PK, *Elements of Plant Biotechnology*, Rastogi Publications, Meerut

Gupta, SN, *Concepts of Biochemistry*, Rastogi Publications, Meeru

Jain, JL., Jain S, Jain, N, *Fundamentals of Biochemistry*, S Chand Publishing, New Delhi

### **B.Sc.-III (Botany)**

#### **Practical**

1. Study of host parasite relationship pf plant diseases listed above.
2. Demonstration of preparation of Czapek's Dox medium and Potato dextrose agar medium, sterilization of culture medium and pouring.
3. Inoculation in culture tubes and petriplates.
4. Gram Staining.
5. Microscopic examination of Curd.
6. Study of plant diseases as listed in the theory paper.
7. Biochemical test of carbohydrate and protein.
8. Instrumentation techniques

Handwritten signature and initials in blue ink at the bottom of the page.

## PRACTICAL SCHEME

TIME: 4 Hrs.

M.M. : 50

1.	Plant Disease/Symptoms	10
2.	Instrumentation techniques	05
3.	Staining of Microbes	05
4.	Tissue Culture techniques	05
5.	Spotting	10
6.	Project Work/ Field Study	05
5.	Viva-Voce	05
6.	Sessional	05

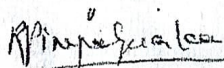


(Dr. J.N. Verma)

Proff. & Head

Govt. D.B. Girls PG College

Raipur, (C.G.)



(Dr. Rekha Pimpalgaonkar)

Proff. & Head

Govt. N PG Science College

Raipur, (C.G.)

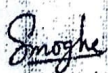


(Dr. Ranjana Shrivastava)

Proff. & Head

Govt. VYTPG Science College

Raipur, (C.G.)



(Mrs. Sanchal Moghe)



(Mr. Shivakant Mishra)

(Mr. Sudheer Tiwari)

Govt. Bilasa Girls College, Bilaspur

