



GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II
DEPARTMENT OF BOTANY

Course outcome for B.Sc. (Honours) CBCS in BOTANY	
SEMESTER-1	BOTCC1: MICROBIOLOGY AND PHYCOLOGY
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none">• Classify, characterize and describe the diversity, structure and economic importance of bacteria and virus• Classify, characterize and describe the different types of algae• Study bacteria and algae under microscope
	BOTCC2: BIO-MOLECULES AND CELL BIOLOGY
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none">• Describe the structure and function of Carbohydrates, Proteins, Fats and Nucleic acids• Explain structure, function, classification and kinetics of enzymes• Describe the physical and chemical structure and function of different cellular components• Explain and study (under microscope) the process and control of cell division
SEMESTER-2	BOTCC3: MYCOLOGY AND PHYTOPATHOLOGY
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none">• Describe the morphology, nutrition, reproduction and classification of the fungi• Explain symbiotic relationship of fungi with algae and plants• Explain the pathological nature and effect of fungi on plants• Study and diagnose the pathology of a diseased plant
	BOTCC4: ARCHEGONIATE
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none">• Describe the diversity and morphology of bryophytes, pteridophytes and gymnosperms• Provide comparative insight to their life cycles• Explain the phylogenetic interrelationships between the lower plant groups
SEMESTER-3	BOTCC5: ANATOMY OF ANGIOSPERMS
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none">• Describe the different tissues and tissue systems in diverse angiospermic groups• Explain anatomical adaptations in plant groups under diverse environmental conditions• Study the anatomy of different plant groups under microscope
	BOTCC6: ECONOMIC BOTANY
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none">• Create awareness about the cultivation, conservation and utilization of various commercially and medicinally important plants• Identify economically important plants on the basis of botanical features



Officer-in-charge
Govt. General Degree College
Khargapur-II, Madipur
Paschim Medinipur-721149


HEAD
Dept. of Botany
Govt. General Degree College
Khargapur-II, Madipur
Paschim Medinipur, 721149

**GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II
DEPARTMENT OF BOTANY**

SEMESTER-4	BOTCC7: GENETICS
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Comprehend the laws of inheritance (Mendelian and Non-Mendelian) • Create awareness about the genetic disorders due to different chromosomal anomalies and mutations
	BOTCC8: MOLECULAR BIOLOGY
	After the completion of the course, the student will be able to:
<ul style="list-style-type: none"> • Understand the structure and function of DNA & RNA as genetic materials • Explain the process and regulation of replication, translation, transcription of NA • Gain knowledge about the modern techniques of molecular biology as a tool for genetic engineering 	
SEMESTER-4	BOTCC9: PLANT ECOLOGY AND PHYTOGEOGRAPHY
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Be acquainted with the organization of an organism into population structure and community • Understand the interaction between different organisms with the environment at various ecological levels, and their conservation • Be knowledgeable about the distribution of different plant groups in the Indian subcontinent • Study different ecological parameters in the field
	BOTCC10: PLANT SYSTEMATICS
SEMESTER-5	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Categorize, study and classify the plant kingdom into different taxonomic groups • Study the phylogeny of plants • Identify and categorize any plant through a methodical process
	BOTCC11: REPRODUCTIVE BIOLOGY OF ANGIOSPERMS
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Understand the process of development of male and female sexual organs in angiosperms • Explain the process of fertilization in plants in a stepwise manner, with process controlling agents (both genetic and non-genetic) • Study pollen grains, pollen tubes, ovules and embryos under microscope
SEMESTER-5	BOTCC12: PLANT PHYSIOLOGY
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Understand the process of mineral nutrition in plants • Explain natural plant phenomenon viz., germination, dormancy, flowering, etc. • Study photosynthesis, respiration, transpiration, etc. in plants through experimentations


 Officer-in-Charge
 Govt. General Degree College
 Kharagpur-II, Medinipur
 Paschim Medinipur-721149


 HEAD
 Dept. of Botany
 Govt. General Degree College
 Kharagpur-II, Medinipur
 Paschim Medinipur, 721149

GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II
DEPARTMENT OF BOTANY

SEMESTER-6	BOTCC13: PLANT METABOLISM
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Describe anabolism and catabolism in plants • Explain the nitrogen fixation mechanism
	BOTCC14: PLANT BIOTECHNOLOGY
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Understand tissue culture in plants with respect to its principle, methods and applications • Be acquainted with the recombinant DNA technology as a tool to develop genetically modified plants
	BOTSEC1: Biofertilizers
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Know pollution free, natural and organic mode of fertilization • Understand their use in sustainable, non-polluting organic farming and agriculture • Obtain knowledge about preparation and use of biofertilizers
	BOTSEC2: Mushroom Culture Technology
After the completion of the course, the student will be able to:	
<ul style="list-style-type: none"> • Understand the types of mushrooms and their economic importance • Know the techniques for the cultivation of mushrooms • Understand the process of marketing the mushrooms 	
BOTDSE1: Natural Resource Management	
After the completion of the course, the student will be able to:	
<ul style="list-style-type: none"> • Know the different natural resources, viz., soil, water, forest, etc. • Understand their interaction with each other as well as the human community 	
BOTDSE2: Plant Breeding	
After the completion of the course, the student will be able to:	
<ul style="list-style-type: none"> • Understand the process of crop improvement • Understand the different breeding techniques in plants 	
Course outcome for B.Sc. (General) CBCS in BOTANY	
BOTDSC1: Biodiversity (Microbes, Algae, Fungi and Archegoniate)	
After the completion of the course, the student will be able to:	
<ul style="list-style-type: none"> • Understand the evolution of plant life through a journey from virus-bacteria to higher plant forms by studying the different groups life cycle and structure • Visualize the different microbial and plant groups under microscope 	
BOTDSC2: Plant Ecology and Taxonomy	
After the completion of the course, the student will be able to:	
<ul style="list-style-type: none"> • Understand the function and structure of the ecosystem 	


Signature
 Officer in charge
 Govt. General Degree College
 Khargapur-II, Bhubaneswar
 Distt. Bhubaneswar, pin-751005

Signature
 Head
 Govt. General Degree College
 Khargapur-II, Bhubaneswar
 Distt. Bhubaneswar, pin-751005

GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II

DEPARTMENT OF BOTANY

	<ul style="list-style-type: none"> • Know the different components of the ecosystem and their interaction • Identify and systematically classify angiosperms
	BOTDSC3: Plant Anatomy and Embryology
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Learn the internal structure and organization of the plants • Have hands on training on how to cut and prepare sections from plant samples to study the tissues • Understand the process of reproduction in angiosperms through development of male and female sex organs, pollination and fertilization
	BOTDSC4: Plant Physiology and Metabolism
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Understand the effect of water and minerals in various physiological processes • Know how photosynthesis and respiration • Understand the process of reproduction in angiosperms through development of male and female sex organs, pollination and fertilization
	BOTSEC1: Biofertilizers
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Know pollution free, natural and organic mode of fertilization • Understand their used in sustainable, non-polluting organic farming and agriculture • Obtain knowledge about preparation and use of biofertilizers
	BOTSEC2: Mushroom Culture Technology
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Understand the types of mushrooms and their economic importance • Know the techniques for the cultivation of mushrooms • Understand the process of marketing the mushrooms
	BOTSEC3: Ethnobotany
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Understand the abundance of plants used by the ethnic communities as medicine • Know the biochemical and pharmacognosy details of the ethnic medicines
	BOTSEC4: Medicinal Botany
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Understand the use of plants for medicinal purpose • Know how to do conservation of medicinally important plants
	BOTDSE1: Economic Botany and Biotechnology
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none"> • Acquire knowledge about the plant resources and their economic uses • Understand modern technical advances like cloning, transformation etc. and their uses in plant science


 Head
 Dept. of Botany
 Govt. General Degree College
 Kharagpur-II, Madpur
 Paschim Medinipur, 721148


 HEAD
 Dept. of Botany
 Govt. General Degree College
 Kharagpur-II, Madpur
 Paschim Medinipur, 721148

GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II
DEPARTMENT OF BOTANY

	BOTDSE2: Genetics and Plant Breeding
	After the completion of the course, the student will be able to:
	<ul style="list-style-type: none">• Understand the basis of inheritance and linkage of genes, quantitative traits, and sex determination• Become knowledgeable about the methods involved in crop improvement through various breeding techniques



Officer-in-charge
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur-721149



HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur, 721149



Course outcome for B.Sc. (Honours) in Botany (1+1+1)

PART-I

Paper I (Theory): Microbiology, Phycology, Mycology and Plant Pathology, Morphology

On completion of the course the students should be able to:

- Have an idea of different types of organisms (virus, prokaryotic and eukaryotic), their ultrastructure and organization, classification, reproduction (sexual and asexual), and roles in natural bio-geo-chemical cycles.
- Be knowledgeable about the cellular ultrastructure, thallus organization, reproduction (asexual and sexual), and economic and ecological importance of various types of algae in nature.
- Know the cellular ultrastructure, fruit body organization, classification, and life cycle of different types of molds and mushrooms found in nature.
- Acquire knowledge about the nature, cause, classification, host-pathogen interaction, and control of various plant diseases caused.
- Know the morphological types and evolution of inflorescence, flower components, pollination and fruits found in angiosperms.

Paper II (Theory): Bryology, Pteridology, Gymnosperm, Paleobotany, Palynology and Embryology

On completion of the course the students should be able to:

- Know the classification, origin, structure of gametophytic and sporophytic plant body, life cycle, phylogeny and economic and ecological importance of Bryophytes.
- Have knowledge about the classification, origin, structure of plant body, life cycle, phylogeny, evolution into seed plants, and economic importance of Pteridophytes.
- Know the classification, origin and establishment of seed habit, morphology-anatomy of plant body, life cycle, evolution, and economic importance of Gymnosperms.
- Acquire knowledge about the formation of different types of fossils, radio carbon dating, and Geological time scale of plant life on earth.
- Know the structure of different types of spores and pollens, and NPC classification.
- Be knowledgeable about the structure and development of male and female gametophytes, endosperms, and typical monocot and dicot embryos in angiosperms.

Officer-in-charge
Govt. General Degree College
KGP-751004, Paschim Medinipur
Dist. Paschim Medinipur - 751004

HEAD
Department of Botany
Govt. General Degree College, KGP-
Medinipur, Paschim Medinipur

PART-II

Paper III (Theory): Taxonomy of Angiosperms, Ecology, Economic Botany, Ethnobotany, Floriculture, Pharmacognosy, Phytogeography

On completion of the course the students should be able to:

- Know the basis of botanical nomenclature, different major systems of classification of plants, herbarium, botanic gardens, and origin of angiosperms.
- Be acquainted with the concepts of ecosystem, population & community ecology, plant adaptation, bio-geochemical cycles, pollution and climatic changes, and the importance & methods of conservation of biodiversity.
- Acquire knowledge about the diversity of economically important plants, along with their morphological and anatomical features, cultivation, and classification.
- Know the uses of different plants by different ethnic tribes as medicines.
- Get a clear concept of the morphological, anatomical and biochemical basis of drugs yielded from various medicinal plants.
- Know about the geographical distribution of plants in the world with special emphasis to Indian sub-continent, endemism, and Geographical Information System.

Paper IV (Theory): Plant Physiology, Biochemistry, Applied Botany, and Anatomy

On completion of the course the students should be able to:


- Know the physiological process of translocation of water & minerals, photosynthesis, respiration, transpiration, nitrogen fixation, growth & flowering regulation in plants.
- Have knowledge about biomolecules structure & function (carbohydrates, proteins, lipids, nucleic acids), enzyme action mechanism in living beings, especially plants.
- Be acquainted with the industrial production of different enzymes, antibiotics, dairy products, etc. by microbial fermentation; the uses of algae and mushrooms as food and pharmaceuticals; different industrial plant products.
- Acquire knowledge about structure and organization of plant tissues according to diverse functions viz., protection, metabolism, growth (length and girth); and special anomalies in tissue organization.

Paper V (Practical): Microbiology, Algae, Fungi, Pathology, Bryophyte, Pteridophyte, Morphology

On completion of the course the students should be able to work out:

- Bacterial staining and visualization, algal sample visualization, fungal sample visualization under microscope.


Officer-in-charge
Govt. General Degree College
Kharagpur-II, Medinipur
Paschim Medinipur-721149


HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Medinipur
Paschim Medinipur, 721149

- Identification of pathogen from diseased plant tissue.
- Dissection, mounting, drawing, and identification of the selected genera in Bryophytes and Pteridophytes.
- Morphology of different dicot and monocot flowers; Herbarium preparation.

PART-III

Paper VI (Theory): Cell Biology and Molecular Biology, Genetics and Bioinformatics, Biotechnology, Plant Breeding and Biometry

On completion of the course the students should be able to understand:

- Different cellular components' structure and function.
- Mechanism of cell division (mitosis and meiosis) and their regulations.
- Chromosomal organizations and anomalies.
- Structure, sequencing and replication of DNA and RNA
- The laws of inheritance (Mendelian and Non-Mendelian)
- About the genetic disorders due to different chromosomal anomalies and mutations (types and mechanisms)
- How jumping genes work and regulation of genes
- Basic principles and protocols of bioinformatics
- The recombinant DNA technology as a tool to develop genetically modified plants and microbes
- Tissue culture in plants with respect to its principle, methods and applications
- The process of crop improvement and the different breeding techniques in plants

Paper VI (Practical): Taxonomy, Pharmacognosy, Ecology, Anatomy

On completion of the course the students should be able to work out:

- The identification of angiospermic plants from different families
- The anatomical and biochemical basis of the plant parts used for medicinal purposes
- Internal anatomical structure of different angiospermic plants
- Different ecological parameters and ecological adaptations in plants

Paper VII (Practical): Plant Physiology, Biochemistry, Plant breeding

On completion of the course the students should be able to work out:

- Quantify different physiological phenomenon in plants (transpiration, photosynthesis, respiration, etc.)
- Quantitative and qualitative biochemical estimation of carbohydrates and protein
- Visualize cell division under microscope after proper staining
- Different grafting procedures



Officer-in-charge
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur-721149




HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur, 721149



Course outcome for BOTANY (GENERAL)

1+1+1 system

PART-I

Paper I (Theory):

On completion of the course the students should be able to:

- Have an idea of different types of organisms (virus, prokaryotic and eukaryotic), their ultrastructure and organization, classification, reproduction (sexual and asexual), and roles in natural bio-geo-chemical cycles.
- Be knowledgeable about the cellular ultrastructure, thallus organization, reproduction (asexual and sexual), and economic and ecological importance of various types of algae in nature.
- Know the cellular ultrastructure, fruit body organization, classification, and life cycle of different types of molds and mushrooms found in nature.
- Acquire knowledge about the nature, cause, classification, host-pathogen interaction, and control of various plant diseases caused.
- Know the morphological types and evolution of inflorescence, flower components, pollination and fruits found in angiosperms.
- Know the basis of botanical nomenclature, different major systems of classification of plants, herbarium, botanic gardens, and origin of angiosperms.
- Acquire knowledge about the diversity of economically important plants, along with their morphological and anatomical features, cultivation, and classification.

PART-II

Paper II (Theory):

On completion of the course the students should be able to:

- Acquire knowledge about structure and organization of plant tissues according to diverse functions viz., protection, metabolism, growth (length and girth); and special anomalies in tissue organization.
- Be acquainted with the concepts of ecosystem, population & community ecology, plant adaptation, bio-geochemical cycles, pollution and climatic changes, and the importance & methods of conservation of biodiversity.
- Understand the abundance of plants used by the ethnic communities as medicine, and the anatomical and biochemical basis of the plant parts used for ethnic medicinal purposes
- Different cellular components' structure and function.
- Mechanism of cell division (mitosis and meiosis) and their regulations.
- Chromosomal organizations and anomalies.

Dr. Pradyumn Kumar
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur-721149

HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur, 721149

- The laws of inheritance (Mendelian and Non-Mendelian)
- About the genetic disorders due to different chromosomal anomalies and mutations (types and mechanisms)
- How jumping genes work and regulation of genes

Paper III (Practical):

On completion of the course the students should be able to work out:

- Algal sample visualization, fungal sample visualization under microscope.
- Identification of pathogen from diseased plant tissue.
- Dissection, mounting, drawing, and identification of the selected genera in Bryophytes and Pteridophytes.
- The morphology of different dicot and monocot flowers.
- Herbarium preparation.
- Quantify different physiological phenomenon in plants (transpiration, photosynthesis, respiration, etc.)
- Internal anatomical structure of different angiospermic plants
- Visualize mitosis process under microscope

PART-III

Paper IV-A (Theory):

On completion of the course the students should be able to understand:


- DNA replication and gene regulation, rDNA technology and gene cloning techniques
- Non-Mendelian inheritance
- Breeding and selection process of plants owing to crop improvement, and propagation through cutting grafting etc.
- Plant tissue culture technology and its uses
- Cultivation and propagation of ornamental plants, medicinal plants and mushrooms
- Protection of plants and seeds from pathogens; maintenance of biodiversity conservation
- Use of microbes to fertilize crop fields

Paper IV-B (Practical):

On completion of the course the students should be able to work out:

- Using different laboratory equipment (pH meter, balance, etc.) to prepare chemical measures of solutions
- Identification of medicinally important plants
- Visualization of bacteria under microscope after staining


Officer-in-charge
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur-721149


HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur, 721149

- Hybridization of plants and selection
- Testing viability of seeds for propagation.



Officer-in-charge
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur-721149



HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur, 721149

GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II

DEPARTMENT OF BOTANY

PROGRAMME OUTCOMES (PO) for B.Sc. (Honours) and B.Sc.

(General) degree programme, in 1+1+1 format

After the completion of B.Sc. (Honours) and B.Sc. (General) degree programme, in 1+1+1 format the students will be able to:

- Acquire professional working knowledge of major concepts, theoretical principles and experimental findings to various science subjects viz., Physics, Chemistry, Botany, Zoology, Mathematics, etc. (depending upon subject combination).
- Acquire the skills in handling scientific instruments, planning and performing in laboratory experiments and drawing logical inferences from the scientific experiments.
- Understand the impact of various types of pollution in societal and environmental contexts, and the need for sustainable development.
- Think critically and have cognitive skills to properly analyze and solve the problems related to physical and biological sciences without relying on assumptions and guesses.
- Demonstrate analytical skill in a range of tools and techniques used in research in science and interdisciplinary.
- Be employed in the industry and higher education institutes.
- Manifest their training in science into day to day activities through scientific mentality.
- Demonstrate human ethical, moral and social values in personal and social life.
- Identify diseases in plants upto their cause (fungal/ bacterial/ viral/ nutrient deficiency) and will be enabled to work out the pathology along with their control.
- Identify and classify plants upto at least family level in nature.

GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II

DEPARTMENT OF BOTANY

- Study the basic genetics of a species to find out its pattern of inheritance of one or more traits.
- Visualize and conceptualize the microbial world, invisible to naked eye, through various microbiological techniques.
- Perform laboratory procedures that will enable them to identify and study various groups of plants and their reproductive systems.
- Develop awareness about the ecosystem and its components and their interactive functioning in nature. They would learn about the types of pollution and their control.
- Study Recombinant DNA Technology, Molecular Biology, Biotechnology and others to help in the development of genetically engineered crops, protecting endangered plants and industrial scale production of different medicines and vaccines.
- Acquire awareness towards sustainable environment maintenance, gender sensitivity, human values, and professional ethics to react responsibly in any social issue.



Officer-in-Charge
Govt. General Degree College
Kharagpur-II, Medinipur
Paschim Medinipur-721149

Officer-in-Charge
Govt. General Degree College
Kharagpur-II, Medinipur
Paschim Medinipur-721149



HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Medinipur
Paschim Medinipur, 721149

GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II DEPARTMENT OF BOTANY



PROGRAMME OUTCOMES (PO)-CBCS

After the completion of B.Sc. (Honours) and B.Sc. (General) degree programme, the students will be able to:

- Acquire professional working knowledge of major concepts, theoretical principles and experimental findings to various science subjects viz., Physics, Chemistry, Botany, Zoology, Mathematics, etc.
- Think critically and have cognitive skills to properly analyze and solve the problems related to physical and biological sciences without relying on assumptions and guesses.
- Understand the impact of various types of pollution in societal and environmental contexts, and the need for sustainable development.
- Acquire the skills in handling scientific instruments, planning and performing in laboratory experiments and drawing logical inferences from the scientific experiments.
- Demonstrate analytical skill in a range of tools and techniques used in research in science and interdisciplinary.
- Be employed in the industry and higher education institutes.
- Demonstrate human ethical, moral and social values in personal and social life.
- Manifest their training in science into day to day activities through scientific mentality.

Officer-in-charge
Govt. General Degree College
Khargpur-II, Madpur
Paschim Medinipur-721149



HEAD
Dept of Botany
Govt. General Degree College
Khargpur-II, Madpur
Paschim Medinipur, 721149

GOVERNMENT GENERAL DEGREE COLLEGE KHARAGPUR-II

DEPARTMENT OF BOTANY

PROGRAMME SPECIFIC OUTCOME (PSO)

On completion of the B.Sc. (Honours) in Botany and B.Sc. (General) with Botany, student will have the ability to:

- Identify and classify plants upto at least family level in nature.
- Visualize and conceptualize the microbial world, invisible to naked eye, through various microbiological techniques.
- Identify diseases in plants upto their cause (fungal/ bacterial/ viral/ nutrient deficiency) and will be enabled to workout the pathology along with their control.
- Perform laboratory procedures that will enable them to identify and study various groups of plants and their reproductive systems.
- Study the basic genetics of a species to find out its pattern of inheritance of one or more traits.
- Develop awareness about the ecosystem and its components and their interactive functioning in nature. They would learn about the types of pollution and their control.
- Study Recombinant DNA Technology, Molecular Biology, Biotechnology and others to help in the development of genetically engineered crops, protecting endangered plants and industrial scale production of different medicines and vaccines.
- Acquire awareness towards sustainable environment maintenance, gender sensitivity, human values, and professional ethics to react responsibly in any social issue.



Officer-in-charge
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur-721149



HEAD
Dept. of Botany
Govt. General Degree College
Kharagpur-II, Madpur
Paschim Medinipur, 721149