

GOVT. GENERAL DEGREE COLLEGE AT KALIGANJ
DEPARTMENT OF BOTANY

SYLLABUS FOR 1ST INTERNAL TEST
FOR ACADEMIC YEAR 2022-23 (ODD SEMESTER)

SEMESTER	COURSE	PAPER	TOPICS
5 TH SEM	HONS.	CC-T-11	Unit 1: Plant Water Relations; Unit 4: Translocation in the Phloem:- Pathways of translocation, experimental evidence; Phloem sap; Mass flow and pressure flow hypothesis; Source sink relationship. Unit 5: Plant growth Regulators: Discovery, Chemical Nature and Physiological Role of Auxin, Gibberellin, Cytokinin, Ethylene, Abscisic acid.
		CC-T-12	Unit 1: Concept of Metabolism; Unit 7: Nitrogen Metabolism (excpt. Ammonia assimilation and transamination) Unit 8: Signal Transduction.
		DSE-T-01	Course B: Industrial and Environmental Microbiology Unit 1: Scope of microbes in industry and environment Unit 2: Bioreactors/Farmenters and fermentation process Unit 3: Microbial production of industrial product: Alcohol (Ethanol), Organic acid (Citric acid, glutamic acid)
		DSE-T-02	Unit 6: Biometry Terms and Definitions- Sample and population, quantitative and qualitative variables, random sampling, frequency distribution, arithmetic mean, mode, median; Measurement of dispersion- standard deviation, coefficient of variation and standard error; Test of significance- Null hypothesis, X ² -test of goodness of fit.
	PROGRAMME	DSE-T-01	Course B: Industrial and Environmental Microbiology Unit 1: Scope of microbes in industry and environment Unit 2: Bioreactors/Farmenters and fermentation process Unit 3: Microbial production of industrial product: Alcohol (Ethanol), Organic acid (Citric acid, glutamic acid)
3 RD SEM		CC-T-05	Unit 1: General account of Bryophytes Unit 3: Type studies of Bryophyte: Systematic Position, morphology, anatomy and reproduction of <i>Riccia</i> .

			Unit 1: General account of Pteridophytes.
		CC-T-06	Unit 1: Progymnosperms and General account of gymnosperms:- General Characteristics of gymnosperms. Unit 4: Origin and evolution of gymnosperms:- Origin and evolution of seed habit. Unit 7: Plant fossils and their age determination:- Environments of fossilization, Geological age in time scale
		CC-T-07	Unit 3: Anther and Pollen biology:- Anther wall, structure and functions, microsporogenesis. Microgametogenesis. NPC System.
		SEC	Course B. Plant Diversity and Human Welfare Unit 1: Plant Diversity and its scope:- Genetic diversity, species diversity, Plant diversity at ecological level. Unit 2: Loss and Management of Biodiversity:- Loss of genetic diversity, Methodology for execution-IUCN.
	PROGRAMME	PCC-T-03	Unit 1: Cell as a Unit of Life, Unit 2: Cell organelles Unit 3: Cell Membrane and Cell Wall.
	HONS. GE	GE-T-01	Unit 1: Microbes Viruses- Discovery, General structure, replication, DNA Virus (T-Phage), Lytic and Lysogenic Cycle, RNA Virus (TMV). Unit 2: Algae General Account, Ecology and Distribution, Range of thallus organization.
1 ST SEM	HONS.	CC-T-01	Unit 1: Biomolecules, Unit 2: Bioenergetics Unit 4: The Cell Unit 5: Cell Wall and Plasma Membrane
		CC-T-02	Unit 1:- Morphology of Leaves, Unit 2:- Morphology of Inflorescence, Unit 3:- Morphology of Flower, Unit 4:- Morphology of Fruits and Seeds, Unit 5:- Cell Wall Unit 6:- Tissue
	HONS. GE	GE-T-01	Unit 1: Microbes, Unit 2: Algae, Unit 3: Fungi
	PROGRAMME	PCC-T-01	Unit 1: Microbes, Unit 2: Algae, Unit 3: Fungi

Sd/-
Head,
Department of Botany,
GGDC at Kaliganj