BOTANY

SEMESTER –I

COURSE-I-A COURSE IN FUNDAMENTALS OF MICROBES & NON VASCULAR PLANTS

CO`S	COURSE OUTCOMES	LEVEL
CO1	Students can categorize the micro organisms and analyze the uses of various micro organism and viruses	L4
CO2	Distinguish structure; reproduction and economic importance of different types of Bacteria	L4
CO3	Identify different forms of fungi; Analyze economic importance of various Fungi and Lichens.	L4
CO4	Summarize General characters and economic importance of Algae and classify Algae.	L5
CO5	Identify general characters, Describe the structures of different Bryophyta species and sketch the evolution of sporophyte in Bryophyta	L3

COURSE-I-A COURSE IN FUNDAMENTALS OF MICROBES & NON VASCULAR PLANTS- PRACTICAL

CO`S	COURSE OUTCOMES	LEVEL
CO1	Identify different microbiology lab equipments	L2
CO2	Point out microbes in the slide	L4
CO3	Differentiate Bacteria	L4
CO4	Draw/Sketch internal structures of Algae; Fungi & Bryophytes	L3
CO5	Demonstrate staining of Bacteria	L3

SEMESTER –II

COURSE-II-A COURSE IN BASICS OF VASCULAR PLANTS & PHYTOGEOPRAPHY

CO`S	COURSE OUTCOMES	LEVEL
CO1	Discriminates various vascular bundles of Lycopodium & Marseliea and arrange evolution in stele.	L4
CO2	Describe characteristics of cycas and Gnetum and explain Geological time scale.	L2
CO3	Construct taxonomic hierarchy; prepare Family characteristics. Interprit economic importance.	L3
CO4	Describe family characteristics and recognize economic importance.	L3
CO5	Classify different Phytogeographic regions of India & World and identify vegetative types in AP.	L4

COURSE-II-A COURSE IN BASIC OF VASCULAR PLANTS & PHYTOGEOPRAPHY–PRACTICAL

CO`S	COURSE OUTCOMES	LEVEL
CO1	Sketch diagrams of pteridophyta plants; relate characters.	L3
CO2	Prepare herbaria.	L3
CO3	Relate plants with geographical regions.	L3
CO4	Survey Various local plants.	L4
CO5	Discriminates fossil forms.	L5

SEMESTER –III

COURSE-III-A COURSE IN ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS; PLANT ECOLOGY AND BIODIVERSITY

CO`S	COURSE OUTCOMES	LEVEL
CO1	Explain different tissue organization in a plant.	L4
CO2	Summarize the development of pollen grain and ovary , discriminate embryo sacs and endosperms..	L5
CO3	Construct food chains; webs, energy flow etc.	L3
CO4	Measure natality; Mortality; growth curves; frequency; GPP; NPP.	L5
CO5	Explain & Recognize Bio-diversity hot sports.	L4

COURSE-III-A COURSE IN ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS; PLANT ECOLOGY AND BIODIVERSITY-PRACTICAL

CO`S	COURSE OUTCOMES	LEVEL
CO1	Differentiate anomalous characters.	L4
CO2	Identify various stages of anther and ovule developments.	L2
CO3	Categorize biodiversity anatomical adaptations.	L4
CO4	Select Biodiversity hot spots in the world & India maps.	L3
CO5	Write the uses of Instruments.	L6

SEMESTER –IV

COURSE-IV-A COURSE IN PLANT PHYSIOLOGY AND METABOLISM

CO`S	COURSE OUTCOMES	LEVEL
CO1	Explain various experiments of ascent of sap; Transpiration etc.	L4
CO2	Construct the sequence in chemical reactions of respiration.	L3
CO3	Compare c3 cycle with c4 cycle; Pigments.	L4
CO4	Classify fats; Nitrogen fixation.	L4
CO5	Generalize growth regulators.	L6

COURSE-IV-A COURSE IN PLANT PHYSIOLOGY AND METABOLISM –PRACTICAL

CO`S	COURSE OUTCOMES	LEVEL
CO1	Calculate stomatal index; stomatal frequency.	L3
CO2	Measure osmotic potential of plants cell.	L5
CO3	Separate chloroplast pigments through chromatography.	L4
CO4	Estimate protein.	L5
CO5	Survey deficiency symptoms in plants.	L4

SEMESTER –V

COURSE-V-A COURSE IN CELL BIOLOGY; GENETICS AND PLANT BREEDING

CO`S	COURSE OUTCOMES	LEVEL
CO1	Distinguish prokaryotic cell with eukaryotic cell.	L2
CO2	Explain chromatin and chromosomes.	L2
CO3	Identify different RNA`s.	L2
CO4	Illustrate DNA Replication.	L3
CO5	Discuss procedure of plant breeding.	L2

COURSE-V-A COURSE IN CELL BIOLOGY; GENETICS AND PLANT BREEDING–PRACTICAL

CO`S	COURSE OUTCOMES	LEVEL
CO1	Solve genetics problem.	L3
CO2	Experiment process of mitoses with Alumini roots.	L3
CO3	Point out meiotic stages in permanent slides.	L4
CO4	Identify special chromosomes.	L2

COURSE-VI-A COURSE IN VEGETABLE CROPS- CULTIVATION PRACTICES

CO`S	COURSE OUTCOMES	LEVEL
CO1	Identify different vegetables and realize their values in human nutrition.	L2
CO2	Construct field for cultivation of leafy vegetable.	L3
CO3	Explain nutritive values of fruity vegetables.	L4
CO4	Relate pathogen with pest.	L3
CO5	Explain root & tuber cultivation process.	L4

COURSE-VI-A COURSE IN VEGETABLE CROPS- CULTIVATION PRACTICES
-PRACTICAL

CO`S	COURSE OUTCOMES	LEVEL
CO1	Analyze soil partical proportions for Gardner.	L3
CO2	Identify seeds of different vegetables.	L2
CO3	Explain care in vegetable seeding.	L4
CO4	Prepare nursery beds.	L3

SEMESTER –V
COURSE-VII-A COURSE IN VEGETABLE CROPS-POST HARVEST-PRACTICES

CO`S	COURSE OUTCOMES	LEVEL
CO1	Understand practices from production to marketing of local vegetables.	L2
CO2	Explain post harvest technology and differentiate various cold storages.	L2
CO3	Explain control measures of vegetable Spoilages.	L3
CO4	Prepare various fried products.	L6
CO5	Identify various marketing agencies.	L2

COURSE-VII-A COURSE IN VEGETABLE CROPS-POST HARVEST PRACTICES-practical-VII

CO`S	COURSE OUTCOMES	LEVEL
CO1	Understand the process of vegetable transportation.	L2
CO2	Construct bed for leafy vegetable cultivation.	L3
CO3	Discriminate the pest on leafy vegetables.	L2
CO4	Prepare marketing process.	L8
CO5	Prepare vegetable Jams&Pickels.	L8