

COURSE OUTCOME OF BOTANY (2019-2020)

SEMESTER –I BS-104 CREDITS-4 TEACHING HOUR/ WEEK: 4

PAPER-I TITLE: MICROBIAL DIVERSITY & LOWER PLANTS

On Completion of this Course students will be able

- To understand the structure and plant diseases caused by bacteria and viruses.
- To understand General characters, structure, reproduction and classification of algae.
- To examine the significant role of cyanobacteria as bio fertilizers.
- To describe life cycles of different algal & fungal species.
- To explore economic importance of lichens.
- To justify the Structure, reproduction, life cycle and systematic position of Bryophytes & Pteridophytes.
- To know the evolution of sporophytes in bryophytes.
- To identify the stellar evolution and seed formation habit in pteridophytes.

SEMESTER – II BS-204 CREDITS-4 TEACHING HOURS/WEEK: 4

PAPER-II TITLE:GYMNOSPERMS,TAXONOMY OF ANGIOSPERMS & ECOLOGY

On Completion of this Course students will be able

- To gain knowledge about life cycles of gymnosperm plants.
- To relate Types of fossils and fossilization and their importance.
- To discuss the salient features and comparative studies of Systems of classification.
- To identify the systematic study and economic importance of plants belonging to the various families.
- To differentiate ecological adaptations of plants, Hydrophytes, Xerophytes and Mesophytes.
- To distinguish Plant Succession with reference to Hydrosere and Xerosere.

SEMESTER – III BS-304 CREDITS-4 TEACHING HOURS/WEEK: 4

PAPER –III TITLE: PLANT ANATOMY & EMBRYOLOGY

On Completion of this Course students will be able

- To describe Meristems, root & shoot apices, tissues and tissue systems and leaf ontogeny.
- To compare adaptations in xerophytes and hydrophytes.
 - To distinguish anomalous secondary growth and wood structure in plant species.
- To discuss Anther and Ovule structures, pollen –pistil interaction.
- To justify the development of seed, Endosperm and types of embryos.

SEMESTER – III BS-302 CREDITS-2 TEACHING HOURS/WEEK: 2
PAPER -TITLE: SEC-2 : BIOFERTILIZERS AND ORGANIC FARMING

On Completion of this Course students will be able

- To understand types of fertilizers, manures & their compositions.
- To classify Bacterial and Algal Biofertilizers.
- To experiment the use of VAM on plant growth and yield.
- To create different methods of Biocomposting and pest control.

SEMESTER – IV BS-404 CREDITS-4 TEACHING HOURS/WEEK: 4

TITLE: CELL BIOLOGY, GENETICS & PLANT PHYSIOLOGY

On Completion of this Course students will be able

- To explain the structure of Cell components and their functions.
- To describe cell division, linkage, crossing over and variation in chromosome number.
- To have knowledge of types and molecular basis of mutations.
- To understand plant- water relationship, mineral nutrients, Transpiration and Enzymes.
- To explain mechanism of photosynthesis, Respiration and Nitrogen metabolism.
- To relate Physiological role of Phytohormones.

SEMESTER – IV BS-402 CREDITS-2 TEACHING HOURS/WEEK: 2
PAPER -TITLE: SEC-4 : MUSHROOM CULTIVATION

On Completion of this Course students will be able

- To distinguish edible and poisonous mushrooms.
- To understand the techniques of mushroom cultivation.
- To interpret the nutritional values of various mushrooms .
- To create food preparation and marketing of mushrooms.

SEMESTER – V CREDITS- 3 TEACHING HOUR/WEEK-3

PAPER – V TITLE: CELL BIOLOGY& GENETICS

On Completion of this Course students will be able

- To explain the structure of Cell components and their functions.
- To have Knowledge about the structure, functions of special types of chromosomes
- To describe cell division in plants.
- To describe linkage ,crossing over and Genetic maps.
- To have knowledge of mutations, nature and function of genes& processes of inheritance.

SEMESTER – V CREDITS- 3 TEACHING HOUR/WEEK-3

PAPER- VI TITLE : ELECTIVE –I [ECOLOGY AND BIODIVERSITY]

On Completion of this Course students will be able

- To have knowledge on concepts and components of Ecosystem.
- To understand ecological relationships between organisms and their environment.
- To identify diversity of life forms in an ecosystem.
- To explain community ecology & dynamics
- To understand the role that biodiversity plays in conservation science.

SEMESTER – VI CREDITS- 3 TEACHING HOUR/WEEK-3

PAPER – VII TITLE: PLANT PHYSIOLOGY

On finishing of this Course students will be able

- To understand plant physiological processes and metabolism.
- To explain the role of micro nutrients in plant growth and development.
- To relate photosynthesis with the formation of primary and secondary metabolites.
- To clarify the physiology of flowering & photo periodism.
- To have knowledge of stress physiology.

SEMESTER – VI CREDITS- 3 TEACHING HOUR/WEEK-3

PAPER – VIII TITLE: ELECTIVE –III [TISSUE CULTURE AND BIOTECHNOLOGY]

On Completion of this Course students will be able

- To explain the main techniques of in vitro culture of plant cells & tissues.
- To know the methods used for the bio-production of plant secondary metabolites.
- To have knowledge of basic concept of gene cloning & enzymes involved in it.
- To Know the main techniques of genetic manipulation of plant organisms.
- To explain the production of transgenic plants.
