

M.sc I year

Ist sem

paper Ist Biology and diversity of viruses bacteria and fungi

C.O.I	Study of microbes such as virus Bacteria , fungi, actenomyces, mycoplasma and other prokaryotes is very usefull for general knowledge of students .
C.O.II	To study about reproduction of microbes and their nutrisional and infection study .
C.O. III	To study about fungi their nutrision , life cycle and disease caused in plants .

paper IInd Biology and diversity of algae and bryophytes

C.O. I	To study about the diversity and classification of algae .
C.O. II	To study the diversity and classification of bryophytes .

paper IIIrd biology and diversity of pteridophytes and gymnosperms

C.O.I	To learn about basic idea of pleobotany.
C.O.III	To learn about classification and life – cycle of pteridophytes .
C.O.III	To study about life cycle and economical importance of gymnosperm .

paper IVth Ecology and environment

C.O.I	Study about the ecosystem , ecological pyramids and energy flow in ecosystem.
C.O.II	Global biogeochemical cycle of C,N,P and S
C.O.III	To learn about concept of climax community and biodiversity .

M.Sc II nd Sem
paper Ist Taxonomy of angiosperm

C.O.I	To study about classification of angiosperms
C.O.II	To learn about angiosperm evolution and phylogeny .
C.O.III	To learn about important families of angiosperms .

paper IInd Morphology and anatomy of angiosperm

C.O.I	To learn about floral morphology ,Inflorescence of flower and morphology of stamen and carpel .
C.O.II	To study about shoot and root apical meristems
C.O.III	To learn about secondary growth and anomalies of angiosperms ,

paper IIIrd Embryology and reproduction of angiosperm

C.O.I	To study about the embryology of angiosperm.
C.O.II	To learn about pollination in angiosperm.
C.O.III	To Study about embryogeny in angiosperm and dynamics of fruit growth .

paper IVth Utilization and Conservation of plant resources.

C.O.I	To study about the utilization and conservation of plant resources .
C.O.II	To learn about the forest plant, aquatic plant and grass land plants and their habitat .
C.O.III	To study about food yielding plants.

M.Sc II Year
M.Sc III sem
Paper Ist Plant physiology

C.O.I	To study plant water relation , stomatal movement of plant.
C.O.II	Learn about different plant growth regulators and their effect on plant.
C.O.III	To known plant responses against different stress condition like low water, salinity , heat etc.

Paper IInd Biochemistry

C.O.I	To gain knowledge about enzyme and their reactions
C.O.II	Study about photosynthesis and pigment system.
C.O.III	To learn about respiration , lipid ,sulphate and N2 – metabolism in plants .

Paper IIIrd Cell and molecular biology

C.O.I	To gain knowledge about cell to cell contact.
C.O.II	study the DNA - structure its types replication and gene regulation in prokaryotes and eukaryotes .
C.O.III	to learn about transcription translation and different molecular techniques .

Paper IVth Genetics and Statistice

C.O.I	To learn about mandelian genetics and law of mendelian inheritance .
C.O.II	Gain knowledge about recombination, crossing over mutation DNA – damage and repair mechanism .
C.O.III	To study in situ hybridization and biostatistics tool like – S.D , S.E , T – test , etc .

M.Sc IV sem

Paper Ist Biotechnology

C.O.I	To study about the plant tissue culture .
C.O.II	To study about somatic embryogenesis and protoplast culture .
C.O.III	To learn about application of plant tissue culture .

Paper IInd Genetic engineering and genomics

C.O.I	To study about recombinant DNA technology.
C.O.II	To study about gene cloning – principal and techniques.
C.O.III	To learn about genomics – basic concet , types of industrial microbes .

Paper IIIrd Ethnobotany

C.O.I	To study about the scope of ethnobotany and Indian work on ethnobotany .
C.O.II	To learn about wild edible plants used by ethnic peoples.
C.O.III	To know about ethanobotanical and ethermedicinal plants in the area .

Paper IVth Plant society

C.O.I	To study about plant and society , innovation for meeting world food demond.
C.O.II	To learn about the plants of human health and different system of medicines .
C.O.III	To study about the plants of agriculture and horticulture learn their cultivation and marketing .

B.Sc Ist year

Paper Ist => Diversity of lowe plant

C.O.I	To study the cryptogams and detail learning about their diversity .
C.O.II	To study the whole classification and morphology about algae , fungi , and bryophyta .
C.O.III	Study the life cycle of cryptogams.
C.O.IV	Study the Economical importarce of cryptogoms .
C.O.V	Basic knowledge about virus, bacteria and Cynobacteria .

B.Sc Ist year

Paper IInd => Diversity of higher plant

C.O.I	To study the distribution, classification and general characters of gymnosperms In india .
C.O.II	Study about structure , reproduction and life cycle of gymnosperms like – cycas , pinus and ephedra .
C.O.III	Learn about root apical meristem , internal structure , root modification of monocot and dicot plant.
C.O.IV	To study the shoot system of monocot and and dicot plant .
C.O.V	Learn about internal leaf structure of dicot and monocot plants , study the photosynthesis and water stress physiology of plants .

B.Sc IInd year

Paper Ist => Taxonomy and embryology of angiosperms

C.O.I	Learn about the origin and evolution of angiosperm .
C.O.II	Study about economical importance of different flowering plants .
C.O.III	Learn about different families like – rubiaceae , asteraceae , apocynacace , solanaceae lamiaceae and poaceae .
C.O.IV	Study the structure of anther , microspor genesis and male / female gametophyte .
C.O.V	Teach about double fertilization , triple fusion and development of fruits .

B.Sc IInd year

Paper IInd => Plant ecology, biodiversity and phytogeography

C.O.I	To study the structure of ecosystem ,ecological pyramids ,and energy flow in ecosystem .
C.O.II	Learn about ecological adoption, plant succession pprocess .
C.O.III	To study the featunes of any population like density , natality , mertality , growth curve etc.
C.O.IV	Learn about physical and chemical properties of soil, acid rain, global warming etc.
C.O.V	Study about phytogeography of india and Madhya Pradesh .

B.Sc IIIrd year

Paper Ist => Plant physiology and biochemistry

C.O.I	Study about plant water relation .
C.O.II	To learn the plant nutrition (macro and micro) biomolecules (carbohydrates , lipids, protein, enzyme) and metabolism process .
C.O.III	Learn about photosynthesis process occur in plants .
C.O.IV	To study the respiration process in plants .
C.O.V	To known about enzymes, plant hormones .

B.Sc IIIrd year

Paper IInd => Cell biology , genetics and biotechnology

C.O.I	Learn about structure of plasma membrane cell wall and different cell organelles .
C.O.II	To study the chromosomal organization of plant also study about DNA – Replication .
C.O.III	Detail study about mendelian laws
C.O.IV	To learn about gene, different types of RNA and role of RNA in evolution .
C.O.V	To study the plant breeding techniques, biotechnology and genetic engineering .