

**(DBOT01)**

**ASSIGNMENT - 1**

M.Sc. DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

BIOLOGY AND DIVERSITY OF ALGAE, BRYOPHYTES, PTERIDOPHYTES AND  
GYMNOSPERMS

**MAXIMUM : 30 MARKS**

**ANSWER ALL QUESTIONS**

1. Reproduction in Cyanophyta
2. Fossil algae
3. Thallus range in Bryophytes
4. Evolution in Hepaticopsida
5. Structure of sporophyte in Psilotum
6. Stele in Lycopsida

**(DBOT01)**

**ASSIGNMENT - 2**

M.Sc. DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

BIOLOGY AND DIVERSITY OF ALGAE, BRYOPHYTES, PTERIDOPHYTES AND  
GYMNOSPERMS

**MAXIMUM : 30 MARKS**

**ANSWER ALL QUESTIONS**

1. Distribution of Gymnosperms
2. Needles in Pinus
3. (a) Give an account of life cycles patterns in Algae.  
(b) Describe the ecology and phylogenetic relations in Phaeophyta.
4. (a) Trace the evolutionary trends in Bryophytes.  
(b) Compare and contrast the reproduction in Hepaticopsida and Anthocerotopsida.
5. (a) Give an account of heterospory and seed habit in Pteridophytes.  
(b) Describe the reproduction in Pteropsida.
6. (a) Enumerate the salient features of Pteridospermales.  
(b) Describe the economic importance of Gymnosperms.

**(DBOT02)**

**ASSIGNMENT - 1**

M.Sc. (Previous) DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

SYSTEMATICS OF ANGIOSPERMS AND  
PLANT ECOLOGY

**MAXIMUM : 30 MARKS**

**ANSWER ALL QUESTIONS.**

1. Classification of Linnaeus
2. Vegetation types of Andhra Pradesh
3. Nomenclatural types
4. Intraspecific categories
5. Energy flow
6. Homeostasis
7. Alternate energy sources

**(DBOT02)**

**ASSIGNMENT - 2**

M.Sc. (Previous) DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

SYSTEMATICS OF ANGIOSPERMS AND  
PLANT ECOLOGY

**MAXIMUM : 30 MARKS**

**ANSWER ALL QUESTIONS.**

1. Continental drift
2. (a) Give an account of Bessey system of classification.  
(b) Compare and contrast the systems of classifications of Hutchinson and Takhtajan.
3. (a) Give an account of principles of plant taxonomy.  
(b) How do you resolve taxonomic disputes using cytology as a tool?
4. (a) Describe the biogeochemical cycle with reference to carbon and sulphur.  
(b) Give an account of plant succession.
5. (a) Give an account of floristic regions of the world.  
(b) Describe the causes, consequences and control of environmental pollution.

**2(DBOT02)**

**(DBOT03)**

**ASSIGNMENT - 1**

M.Sc. (Previous) DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

CYTOLOGY, GENETICS AND PLANT BREEDING

**MAXIMUM : 30 MARKS**

**ANSWER ALL QUESTIONS**

1. Pachytene
2. Telomere
3. Translocation
4. Haploids
5. Hypostasis vs epistasis
6. Chemical mutagenesis
7. Plant introduction

**(DBOT03)**

**ASSIGNMENT - 2**

M.Sc. (Previous) DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

CYTOLOGY, GENETICS AND PLANT BREEDING

**MAXIMUM : 30 MARKS**

**ANSWER ALL QUESTIONS**

1. Back cross method
2. (a) Give an account of evolution of karyotype.  
(b) Describe cell cycle and cell division in eukaryotes.
3. (a) Describe the special types of chromosomes.  
(b) Describe the origin, occurrence and production of aneuploids.
4. (a) Enumerate the salient features of chromosome mapping in eukaryotes.  
(b) Give an account of cytoplasmic inheritance.
5. (a) Describe the breeding methods in self pollinated crops.  
(b) How do you improve a vegetatively propagated crop?

**(DBOT04)**

**ASSIGNMENT - 1**

M.Sc. (Previous) DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

PLANT PHYSIOLOGY AND METABOLISM

**MAXIMUM : 30 MARKS**  
**ANSWER ALL QUESTIONS**

1. Properties of water
2. Membrane transport proteins
3. Km value
4. Pentose phosphate pathway
5. Transamination
6. b-oxidation

**(DBOT04)**

**ASSIGNMENT - 2**

M.Sc. (Previous) DEGREE EXAMINATION, MARCH, 2023.

First Year

Botany

PLANT PHYSIOLOGY AND METABOLISM

**MAXIMUM : 30 MARKS**  
**ANSWER ALL QUESTIONS**

1. Photoperiodism
2. Heat shock proteins
3. (a) Describe the stomatal regulation of transpiration.  
(b) Describe the role of macro and micro nutrients and their transport by diffusion.
4. (a) Describe the mechanism of electron and proton transport.  
(b) Give an account of photorespiration and its significance.
5. (a) Describe the synthesis of amino acids by reductive amination.  
(b) Describe the structure and functions of storage and membrane lipids.
6. (a) Give an account of phytochrome induced plant responses.  
(b) Describe the physiological effects and mechanism of action of gibberellins.