

(DBOT 01)

ASSIGNMENT-1

M.Sc. (Previous) DEGREE EXAMINATION, JUNE 2022.

First Year

Botany

**BIOLOGY AND DIVERSITY OF ALGAE, BRYOPHYTES,
PTERIDOPHYTES AND GYMNOSPERMS**

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. Ecology of Cyanophyta
2. Pigments in Algae
3. Internal structure of Funaria
4. General characters of Bryophytes
5. Seed in Pteridophytes
6. Classification of Pteridophytes
7. Caytoniales
8. RLS and TLS

(DBOT 01)

ASSIGNMENT-2

M.Sc. (Previous) DEGREE EXAMINATION, JUNE 2022.

First Year

Botany

**BIOLOGY AND DIVERSITY OF ALGAE, BRYOPHYTES,
PTERIDOPHYTES AND GYMNOSPERMS**

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. (a) Describe the ecology and phylogenetic relations of Rhodophyta.
(b) Describe the reproduction in Algae.
2. (a) Describe the thallus organization in Bryophytes.
(b) Describe the reproduction and evolutionary trends in Anthocerotopsida.
3. (a) Describe the evolution of stele in Pteridophytes.
(b) Describe the reproduction in Sphaenopsida.
4. (a) Compare and contrast the male cones of Pinus and Gnetum.
(b) Enumerate the salient features of Bennettitales.

(DBOT 02)

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First Year

Botany

SYSTEMATICS OF ANGIOSPERMS AND
PLANT ECOLOGY

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. Vegetation types of Guntur district
2. De Candolle
3. Minor categories
4. Geography in relation to taxonomy
5. Food chains
6. Biological magnification
7. Control of environmental pollution
8. Additional energy sources.

(DBOT 02)

ASSIGNMENT-2
M.Sc. (Previous) DEGREE EXAMINATION, JUNE 2022.

First Year

Botany

SYSTEMATICS OF ANGIOSPERMS AND
PLANT ECOLOGY

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. (a) Give an account of Takhtajan system of classification.
(b) Compare and contrast the systems of classifications of Hutchinson and Engler and Prantl.
2. (a) What are the contributions of phytochemistry to taxonomy?
(b) Describe the codes of botanical nomenclature.
3. (a) Describe the biogeochemical cycle with reference to phosphorus and sulphur.
(b) Give an account of population interactions and natural regulation of populations.
4. (a) Describe the principles of plant geography.
(b) Trace the evolution of present day vegetation.

(DBOT 03)

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First Year

Botany

CYTOLOGY, GENETICS AND PLANT BREEDING

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. Cell cycle
2. Centromere
3. B-chromosomes
4. Aneuploids
5. Pseudoalleles
6. Chi-square test
7. Clonal selection
8. Multiple crosses

(DBOT 03)

ASSIGNMENT-2

M.Sc. (Previous) DEGREE EXAMINATION, JUNE 2022.

First Year

Botany

CYTOLOGY, GENETICS AND PLANT BREEDING

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. (a) Describe the organization of nucleolus.
(b) Trace the evolution of wheat.
2. (a) Describe the structural changes in chromosomes.
(b) Describe the meiosis in haploids.
3. (a) Give an account of modified dihybrid ratios.
(b) Explain the role of mutations in plant breeding.
4. (a) Describe the breeding methods in rice.
(b) Describe the breeding methods in maize.

(DBOT 04)

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First Year

Botany

PLANT PHYSIOLOGY AND METABOLISM

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. Water potential
2. Macro nutrients
3. Mode of action of enzyme
4. ATP synthesis
5. Nitrogen uptake
6. Glycolipids
7. Photochemical properties of phytochrome
8. Vernalisation

(DBOT 04)

ASSIGNMENT-2

M.Sc. (Previous) DEGREE EXAMINATION, JUNE 2022.

First Year

Botany

PLANT PHYSIOLOGY AND METABOLISM

MAXIMUM MARKS :30

ANSWER ALL QUESTIONS

1. (a) Describe the water transport through xylem.
(b) Describe the membrane transport proteins.
2. (a) Classify enzymes and their nomenclature.
(b) Give an account of TCA cycle electron transport.
3. (a) Describe the mechanism of nitrogen fixation.
(b) Describe glyoxalate cycle.
4. (a) Describe the physiological effects and mechanism of action of gibberellins.
(b) Give an account of heat shock proteins.