

**ASSIGNMENT - 1**  
**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - I: Plant Ecology & Biodiversity**

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

1. Give a detailed note on Population characteristics and dynamics.
2. Give a detailed note on Communities characteristics and their analysis.
3. Give a detailed note on Migration and Continental drift.
4. Give a detailed note on the global biogeochemical cycle of sulfur.
5. Give a detailed note on UNEP and UNESCO.

**ASSIGNMENT - 2**  
**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - I: Plant Ecology & Biodiversity**

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

1. Give a detailed note on different biodiversity hotspots in India
2. Give a detailed note on Biosphere reserves and Mangroves.
3. Give a detailed note on Gene Banks.
4. Give a detailed note on Phytoremediation.
5. Give a detailed note on applications of GIS in biodiversity studies

**202BO24**

**ASSIGNMENT - 1**  
**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - II: Plant Physiology**

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

1. Give a detailed note on different types of water transport processes.
2. Give a detailed note on the structure and properties of membrane transport proteins.
3. Give a detailed note on the photochemical and biochemical properties of phytochrome.
4. Give a detailed note on Cryptochrome and its role in photomorphogenesis
5. Give a detailed note on Plant growth regulators.

**ASSIGNMENT - 2**  
**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - II: Plant Physiology**

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

1. Give a detailed note on vernalization
2. Give a detailed note on G proteins, second messengers.
3. Give a detailed note on essential nutrients, deficiencies and plant disorders.
4. Give a detailed note on stress avoidance and tolerance mechanisms.
5. Give a detailed note on reclamation of saline and heavy metal contaminated soils.

**203BO24**

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**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - III: Cell biology**

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

1. Give a detailed note on the structure and functions of the Endoplasmic reticulum.
2. Give a detailed note on the structure and functions of the Lysosomes and plant vacuoles.
3. Give a detailed note on ultrastructure of eukaryotic chromosome.
4. Give a detailed note on a special type of chromosome.
5. Give a detailed note on Cell division.

**ASSIGNMENT - 2**  
**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - III: Cell biology**

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

1. Give a detailed note on the different checkpoints in the cell cycle.
2. Give a detailed note on Genomes of mitochondria and chloroplasts.
3. Give a detailed note on the oncogene and tumour suppressor genes.
4. Give a detailed note on structural alterations in chromosomes
5. Give a detailed note on numerical alterations in chromosomes.

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**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - IV : Plant Structure and Development**

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

1. Give a detailed note on types and functions of meristems.
2. Give a detailed note on Shoot Apical Meristem (SAM).
3. Give a detailed note on structure and function of vascular cambium.
4. Give a detailed note on the structure and functions of simple and complex tissues.
5. Give a detailed note on the structure and development of leaf.

**ASSIGNMENT - 2**  
**M.Sc. DEGREE EXAMINATIONS, DECEMBER -2025**

**Second Semester**

**BOTANY**  
**PAPER - IV : Plant Structure and Development**

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

**UNIT –IV**

1. Give a detailed note on the anatomical adaptations of the CAM pathway
2. Give a detailed note on genetic and hormonal regulation of embryo development.
3. Give a detailed note on Seed germination and factors influencing the germination and seedling growth.
4. Give a detailed note on Programmed Cell Death (PCD).
5. Give a detailed note on applications of anatomy in taxonomy and pharmacognosy.