(DBOT21)

ASSIGNMENT-1

M.Sc. (Final) DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

DEVELOPMENT BIOLOGY OF ANGIOSPERMS AND ETHANOBOTANY

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. Apomixis
2. Incompatibility
3. Meristems
4. Leaf
5. Father of Ethnobotany
6. Ethnobotanical knowledge
7. Tribal rights
8. *Withania somnifera*

(DBOT21)

ASSIGNMENT-2

M.Sc. (Final) DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

DEVELOPMENT BIOLOGY OF ANGIOSPERMS AND ETHANOBOTANY

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. (a) Describe the process of fertilization.

   (b) Give an account of female gametophyte.

2. (a) Describe the anomalous secondary thickening in dicot stem.

   (b) Describe the anatomy of stem-root transition.

3. (a) How do you conserve the sacred groves?

   (b) Explain the development of traditional medicine in India.

4. (a) Describe the scientific evaluation of medicinal plants used by tribals.

   (b) Describe the status of ethnobotanical research in Andhra Pradesh.

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(DBOT22)

ASSIGNMENT-1

M.Sc. (Final) DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

MICROBIOLOGY, MYCOLOGY AND PLANT DISEASES

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. Ultrastructure of bacterial cell wall
2. Classification of viruses
3. Kingdom Mycetae
4. Mushroom cultivation
5. Phytoalexins
6. Disease forecasting
7. Citrus canker
8. Epidemiology

(DBOT22)

ASSIGNMENT-2

M.Sc. (Final) DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

MICROBIOLOGY, MYCOLOGY AND PLANT DISEASES

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. (a) Describe the nutritional types of bacteria.

   (b) Describe the role of bacteria in nitrogen and phosphorus cycles.

2. (a) Give a general account of Ascomycotina.

   (b) Compare and contrast Basidiomycotina and Deuteromycotina.

3. (a) Classify plant diseases with suitable examples.

   (b) Describe the factors affecting the out break of plant diseases.

4. (a) Describe the symptoms, etiology, epidemiology and control of TMV.

   (b) Describe the principles of disease control and biological control of plant diseases.

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(DBOT23)

ASSIGNMENT-1

M.Sc. (Final) DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

CELL BIOLOGY AND MOLECULAR BIOLOGY

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. Plasma membrane
2. Golgi complex
3. Electron microscope
4. Genetics of cancer
5. Transduction
6. Transformation
7. Eukaryotic gene expression
8. Chemical structure of DNA

(DBOT23)

ASSIGNMENT-2

M.Sc. (Final) DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

CELL BIOLOGY AND MOLECULAR BIOLOGY

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. (a) Describe the structure and organization of endoplasmic reticulum.

   (b) Describe the structure and functions of lysosomes.

2. (a) Give an overview of transposable elements.

   (b) Describe cell signaling and signal transduction.

3. (a) Describe the fine structure of gene.

   (b) Describe the evolution of gene concept.

4. (a) Describe DNA repair mechanisms.

   (b) Describe genetic code.

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(DBOT24)

ASSIGNMENT-1

M.Sc. DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

PLANT BIOTECHNOLOGY

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. MS medium
2. Autoclave
3. Synthetic seeds
4. Cell suspension
5. rDNA
6. PCR
7. RFLP
8. RAPD

(DBOT24)

ASSIGNMENT-2

M.Sc. DEGREE EXAMINATION, MAY/JUNE 2025.

Second Year

Botany

PLANT BIOTECHNOLOGY

MAXIMUM MARKS:30

ANSWER ALL QUESTIONS

1. (a) How do you develop a tissue culture laboratory?

   (b) Describe the production of haploids through anther culture.

2. (a) Describe the isolation and culture of protoplasts.

   (b) Describe protoplast fusion and somatic hybridization.

3. (a) Give an account of genomic and cDNA libraries.

   (b) Describe the molecular analysis of DNA by blotting techniques.

4. (a) Give an account of direct gene transfer methods.

   (b) Explain the role of biotechnology in industry.

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