(DMB01)

ASSIGNMENT-1

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

First Year

Micro–Biology

INTRODUCTION MICROORGANISMS
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Robert Koch
2. Discovery of antibiotics
3. Cyanobacteria
4. Actinomycetes
5. HIV
6. T4
7. Classification of Protozoa
8. Reproduction in Protozoa

ASSIGNMENT-2

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

First Year

Micro–Biology

INTRODUCTION MICROORGANISMS
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe Germ theory of diseases and germ theory of fermentations.

   (b) Describe the morphology and ultra structure of I typical Bacterial cell.

2. (a) Write an account on recent classification of Bacteria based on Bergy's Mannual.

   (b) Describe the general characters of Archaebacteria and Mycoplasmas.

3. (a) Describe the morphology and chemistry of Viruses.

   (b) Write an account on Symptoms and methods of transmission of Viruses.

4. (a) Describe the general characters and economic uses of Microalgae.

   (b) Explain the processes of Reproduction and economic importance of Fungi.

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(DMB02)

ASSIGNMENT-1

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

First Year

Micro–Biology

MICROBIOLOGICAL METHODS
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Simple staining
2. Principle of Dark field Microscopy
3. MPN method
4. Gaspak
5. TLC
6. Principles of HPLC
7. SDS PAGE
8. Isoelectric focussing

(DMB02)

ASSIGNMENT-2

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

First Year

Micro–Biology

MICROBIOLOGICAL METHODS
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe the principle, methodology and applications of Scanning Electron Microscopy.

   (b) Describe the preparation composition of bacteriological media.

2. (a) Write an account on the methods of isolation of Bacteria.

   (b) Describe the methods of preservation and maintenance of microbial cultures.

3. (a) Describe the methods of cultivation of Viruses.

   (b) Describe the principles and applications of GLC.

4. (a) Describe the two dimensional and pulse field gel electrophoresis.

   (b) Explain the principle and applications of UV VIS Spectrophotometry.

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(DMB03)

ASSIGNMENT-1

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

First Year

Micro-Biology

MICROBIAL PSYCHOLOGY AND BIOCHEMISTRY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Simple diffusion
2. Active transport
3. Methylotrophs
4. Iron oxidisers
5. HMP pathway
6. Krebs cycle
7. Michaelis Menton equation
8. Nucletides

ASSIGNMENT-2

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

First Year

Micro-Biology

MICROBIAL PSYCHOLOGY AND BIOCHEMISTRY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe the Nutritional types of Bacteria.

   (b) Describe the factors affecting bacterial growth.

2. (a) Describe photosynthesis in Cyanobacteria.

   (b) Write an account on Nitrate oxidisers and ammonia oxidisers.

3. (a) Describe ATP structure and different types of phosphorylations.

   (b) Describe ethanol and Lactate fermentations and their uses.

4. (a) Describe the nature and classification of enzymes.

   (b) Explain the structure and function_ of Nucleic acids.

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(DMB 04)

ASSIGNMENT-1

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

First Year

Micro – Biology

ENVIRONMENTAL AND AGRICULTURAL MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Aeroallergens
2. Coli form test for water quality
3. Soil environment
4. Isolation of Iron from soil
5. Rhizobia complex
6. Cyanobacteria as bio inoculants
7. plant quarantine
8. Biological control of plant diseases

(DMB 04)

ASSIGNMENT-2

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

First Year

Micro – Biology

ENVIRONMENTAL AND AGRICULTURAL MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe the Air sampling techniques and microbial propagules in air.

   (b) Describe the microorganisms in water bodies and water borne pathogens.

2. (a) Describe the diversity and abundance of dominant soil microorganisms.

   (b) Explain the methods of isolation of Soil micro flora.

3. (a) Describe the mechanism of Biological Nitrogen fixation and its uses.

   (b) Describe the types of Mycorriza and importance of VAM.

4. (a) Describe the symptoms caused by plat pathogenic fungi and Bacteria.

   (b) Explain the symptomatology, etiology, epidemiology and control of Late Blight of Potato.

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