(DMB 21)

ASSIGNMENT-1

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

Second Year

Micro-Biology

MEDICAL MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Phagocytic cells
2. Concept of virulence
3. Candidiasis
4. Piedras
5. Influenza
6. Mumps
7. Imidazoles
8. Amphoceritin

(DMB 21)

ASSIGNMENT-2

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

Second Year

Micro-Biology

MEDICAL MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe the chemical and biological barriers to infection.

   (b) Explain the invasive factors, bacterial toxins and their role in pathogenesis.

2. (a) Describe the pathogenesis, symptoms, epidemiology diagnosis and control of the disease caused by Neisseria meningitis.

   (b) Write an account on opportunistic mycoses caused by Aspergillosis.

3. (a) Describe the viral disease caused by Hepatitis and Oncoviruses.

   (b) Explain the Protozoan disease caused by Plasmodium species.

4. (a) Describe the methods of transmission and control of epidemics.

   (b) Explain the serological method of diagnosis of bacterial infections.

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(DMB22)

ASSIGNMENT-1

M.Sc. DEGREE EXAMINATION MAY/JUNE -2025

Second Year

Micro-biology

IMMUNOLOGY AND CELLULAR MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. B-cells.
2. Macrophages.
3. ELISA.
4. Autoimmune diseases.
5. Phagocytosis.
6. Super antigens.
7. Apoptosis.
8. Signal transduction in chemotoxis.

(DMB22)

ASSIGNMENT-2

M.Sc. DEGREE EXAMINATION MAY/JUNE -2025

Second Year

Micro-biology

IMMUNOLOGY AND CELLULAR MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe Humoral and cell mediated immunity.

   (b) Explain the structure and functions of primary Lymphoid organs.

2. (a) Describe the nature and types and functions of Antigens and antibodies.

   (b) Write an account on the general account of autoimmune diseases and their control.

3. (a) Describe the molecular mechanisms od adhesion and bacterial adhesions.

   (b) Explain the pore forming toxins and toxins acting on protein synthesis.

4. (a) Describe the cell signalling systems and their characters.

   (b) Explain the endocrine hormone signalling and cytokine signalling.

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(DMB23)

ASSIGNMENT-1

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

Second Year

Micro-Biology

MICROBIAL GENETICS AND
MOLECULAR BIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Concept of Gene
2. Significance of Plasmids
3. Denaturation of DNA
4. SOS repair
5. Operon concept
6. nif genes
7. IS elements
8. Cloning strategies

ASSIGNMENT-2

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

Second Year

Micro-Biology

MICROBIAL GENETICS AND
MOLECULAR BIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe that DNA and RND are genetic materials.

   (b) Write an account on Genetic Recombination and its significance.

2. (a) Describe the types of DNA and their repair mechanisms.

   (b) Write an account on the types of Mutations and their importance.

3. (a) Describe the transcription and translation in Prokaryotes.

   (b) Explain the mechanism of Biological Nitrogen Fixation and its benefits.

4. (a) Describe the tools and techniques in Molecular Biology.

   (b) Explain the production of transgenic plants and their applications in genetic engineering.

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(DMB24)

ASSIGNMENT-1

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

Micro – Biology

Second Year

FOOD AND INDUSTRIAL MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. Most probable number method
2. Dye reduction tests
3. Pasteurisation of Milk
4. Wine production
5. Types of fermenters
6. Membrane filtration technique
7. Batch culture
8. Economic aspects of fermentation

(DMB24)

ASSIGNMENT-2

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

Micro – Biology

Second Year

FOOD AND INDUSTRIAL MICROBIOLOGY
MAXIMUM MARKS :30
ANSWER ALL QUESTIONS

1. (a) Describe the Microorganisms associated with foods and sources of microbial contamination of foods.

   (b) Write an account on the causes of spoilage foods and spoilage of fruits.

2. (a) Describe Single Cell Proteins and cultivation of Mushrooms.

   (b) Write an account on the food poisoning and food borne infections.

3. (a) Describe the components parts of fermentation process and range of fermentation processes.

   (b) Explain the methods of screening of microorganisms for the production of commercially important metabolites.

4. (a) Describe the solid state fermentations and their advantages and disadvantages.

   (b) Explain the fermentation production of antibiotics and enzymes such as penicillin and amylase.

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