

(DMB 21)

Assignment 1
M.Sc. DEGREE EXAMINATION,
DECEMBER 2020.
Second Year
Microbiology

MEDICAL MICROBIOLOGY
MAXIMUM MARKS: 30
ANSWER ALL QUESTIONS

1. Significance of normal flora
2. Concept of virulence
3. *Treponema pallidum*
4. Aspergillosis
5. Oncoviruses
6. Hepatitis

Assignment 2

(DMB 21)

M.Sc. DEGREE EXAMINATION,
DECEMBER 2020.
Second Year
Microbiology

MEDICAL MICROBIOLOGY

MAXIMUM MARKS: 30

ANSWER ALL QUESTIONS

1. Cephalosporins
 2. Sulpha drugs..
 3. (a) Describe the mechanical barriers to infection.
(b) Write an account on bacterial toxins and their role in pathogenesis.
 4. (a) Describe the symptoms, epidemiology, diagnosis and control methods of the disease caused by *Corynebacterium diphtheriae*.
(b) Write an account on dermatomycoses.
 5. (a) Write an account on the viral disease caused by Rabies.
(b) Describe the protozoan disease caused by *Plasmodium* species.
 6. (a) Describe the methods of transmission and control of epidemics.
(b) Describe the biochemical tests used for diagnosis of bacterial pathogens.
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Assignment 1

M.Sc. DEGREE EXAMINATION,
DECEMBER 2020.

Second Year
Microbiology

IMMUNOLOGY AND CELLULAR MICROBIOLOGY

. MAXIMUM MARKS: 30

ANSWER ALL QUESTIONS

1. Neutrophils
2. Macrophages
3. ELISA
4. Cell mediated hypersensitivity reactions
5. Zipper mechanism
6. Trigger mechanism

Assignment 2

(DMB 22)

M.Sc. DEGREE EXAMINATION,
DECEMBER 2020.

Second Year
Microbiology

IMMUNOLOGY AND CELLULAR MICROBIOLOGY

MAXIMUM MARKS: 30

ANSWER ALL QUESTIONS

1. Quorum sensing
 2. Bacterial pheromones.
 3. (a) Write an account on innate and acquired immunity.
(b) Describe the nature, structure and functions of Histocompatibility complex.
 4. (a) Describe the antigen and antibody reactions.
(b) Write an account on autoimmune diseases and their control.
 5. (a) Describe the molecular mechanism of adhesion and bacterial adhesion.
(b) Describe the bacterial toxins and toxins acting on protein synthesis.
 6. (a) Describe the signal transduction in chemotaxis.
(b) Describe the molecules of apoptosis and induction of apoptosis by microbes.
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(DMB 23)

Assignment 1

M.Sc. DEGREE EXAMINATION,
DECEMBER 2020.

Second Year
Micro-Biology

MICROBIAL GENETICS AND MOLECULAR BIOLOGY

MAXIMUM MARKS: 30

ANSWER ALL QUESTIONS

1. Muton
2. Recon
3. Triplet code
4. Cracking of genetic code
5. Features of genetic code
6. Translation in Prokaryotes

Assignment 2

(DMB 23)

M.Sc. DEGREE EXAMINATION,
DECEMBER 2020.

Second Year
Micro-Biology

MICROBIAL GENETICS AND MOLECULAR BIOLOGY

MAXIMUM MARKS: 30

ANSWER ALL QUESTIONS

1. Cloning strategies
 2. Screening of recombinants.
 3. (a) Explain DNA as genetic material.
(b) Describe the genetic recombination in Bacteria.
 4. (a) Describe the types of DNA damages and their repair mechanisms.
(b) Write an account on mutagens.
 5. (a) Write an account on Operon concept.
(b) Describe the nif genes and their regulation in Klebsiella.
 6. (a) Describe the rDNA technology and its applications.
(b) Write an account on Blotting techniques.
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(DMB 24)

Assignment 1

M.Sc. DEGREE EXAMINATION,
DECEMBER 2020.

Second Year

Microbiology

FOOD AND INDUSTRIAL MICROBIOLOGY

MAXIMUM MARKS: 30

ANSWER ALL QUESTIONS

1. Standard plate count
2. Most Probable Number
3. Pasteurisation of milk
4. Microbial spoilage of milk
5. Types of fermenters
6. Body construction of fermenter

M.Sc. DEGREE EXAMINATION,
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Second Year
Microbiology

FOOD AND INDUSTRIAL MICROBIOLOGY

MAXIMUM MARKS: 30

ANSWER ALL QUESTIONS

1. Cell aggregation and flocculation
 2. Foam separation.
 3. (a) Describe the microorganisms associated with foods and the sources of contamination of foods.
(b) Describe the food preservation methods.
 4. (a) Describe the fermentation production of Beer and Wine.
(b) Write an account on Mushroom cultivation.
 5. (a) Describe the range of fermentation processes.
(b) Describe the screening of microorganisms for the production of commercially important metabolites.
 6. (a) Describe the solid state fermentations.
(b) Write an account on recovery and purification of fermentation products.
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