

(DBT01)

ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH, 2023.

Bio-Technology

MICROBIOLOGY AND IMMUNOLOGY

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

1. Describe the morphology and ultrastructure of Viruses.
2. Write an account on Yeasts and Rickettsiae
3. Describe the growth and growth kinetics of Bacteria.
4. Describe the gene transfer mechanisms and their importance.
5. Write an account on Heteromorphous bacteria and their metabolism.

ASSIGNMENT - 2

P.G. DIPLOMA EXAMINATION, MARCH, 2023.

Bio-Technology

MICROBIOLOGY AND IMMUNOLOGY

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

1. Explain the regulation of Nitrogenase and nif genes.
 2. Describe the differences and reactions of antigens and antibodies.
 3. Write an account on Hypersensitivity.
 4. Describe the types of immunity and their significances.
 5. Write an account on Vaccines.
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(DBT02)

ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH 2023.

Bio-Technology

BIOCHEMISTRY AND MOLECULAR BIOLOGY

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

1. Describe the structure and functions of Amino acids.
2. Write an account on Nucleic acids.
3. Describe Gluconeogenesis and its significance.
4. Explain the Cholesterol metabolism and its significance.
5. Explain protein metabolism and its importance.

(DBT02)

ASSIGNMENT - 2

P.G. DIPLOMA EXAMINATION,MARCH 2023.

Bio-Technology

BIOCHEMISTRY AND MOLECULAR BIOLOGY

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1. Write an account on Deoxy ribonucleotides.
 2. Describe Watson and Crick model of DNA.
 3. Explain the post transcriptional modifications and their significance.
 4. Write an account on Mutations.
 5. Explain the regulation of gene expressions.
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(DBT03)

ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH, 2023.

Bio-Technology

PLANT AND ANIMAL TISSUE CULTURE AND GENETIC ENGG.

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1. Describe the preparation of media and their sterilization methods.
2. Explain the Bergmanns plating techniques.
3. Describe the cellular totipotency and its importance.
4. Describe the protoplasts isolation culture and fusion.
5. Explain the sources of material for cell culture.

ASSIGNMENT - 2

P.G. DIPLOMA EXAMINATION, MARCH, 2023.

Bio-Technology

PLANT AND ANIMAL TISSUE CULTURE AND GENETIC ENGG.

MAXIMUM : 30 MARKS
ANSWER ALL QUESTIONS

1. Describe the types and techniques of Mammalian cell culture.
 2. Explain micro carrier culture and cell growth.
 3. Describe stem cell culture and its applications.
 4. Describe the enzymes used in genetic engineering.
 5. Write an account on Vectors and their importance.
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(DBT04)

ASSIGNMENT - 1

P.G. DIPLOMA EXAMINATION, MARCH, 2023.

Bio-Technology

APPLICATIONS OF BIOTECHNOLOGY

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

1. Describe the methods of isolation and maintenance of industrially important microorganisms.
2. Describe the methods of preservations and improvement of microorganisms.
3. Describe the fermentative production of citric acid.
4. Explain the fermentative production of Acetic acid.
5. Explain the Brewing of Amino acids.

(DBT04)

ASSIGNMENT - 2

P.G. DIPLOMA EXAMINATION, MARCH, 2023.

Bio-Technology

APPLICATIONS OF BIOTECHNOLOGY

MAXIMUM : 30 MARKS

ANSWER ALL QUESTIONS

1. Describe the Biosensors and their applications in Biotechnology.
 2. Write an account on the production of Penicillin and its importance.
 3. Describe the production of cephalosporin and its applications.
 4. Describe the production of Insulin and its importance.
 5. Write an account on the production of transgenic plants and their applications in medicine:
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