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ASSIGNMENT-1

M.Sc. DEGREE EXAMINATION, DEC 2025

First Semester

Microbiology

VIROLOGY MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Describe the ultra structure and characters of viruses.
 - (b) Describe the diseases caused by Viroids and the remedial measures.
- 2. (a) Explain the methods of cultivation of Viruses in embryonated eggs.
 - (b) Describe the serological methods for detection of Viruses.
- 3. (a) Explain the symptoms of diseases caused by the plant Viruses.
 - (b) Describe the methods of transmission of plant Viruses, mechanical and biological

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First Semester

Microbiology

VIROLOGY MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Describe the Ultra structure and brief account of life cycle of RNA viruses.
 - (b) Describe the Ultra structure and brief account of life cycles of DNA viruses.
- 2. (a) Describe the general account of Algae and Fungi.
 - (b) Describe the preparation and production of Vaccines.

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First Semester

Microbiology

MICROBIAL BIOCHEMISTRY AND ANALYTICAL TECHNIQUES MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Describe the structure and physicochemical properties of monosaccharrides.
 - (b) Describe the renaturation and denaturation of DNA.
- 2. (a) Explain the properties of amino acids and their uses.
 - (b) Explain the three dimentional structure of Proteins.
- 3. (a) Describe the nature and classification of enzymes.
 - (b) Explain the methods of purification and characterization of Proteins.

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First Semester

Microbiology

MICROBIAL BIOCHEMISTRY AND ANALYTICAL TECHNIQUES MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Explain the principles and applications of UV Mass Spectrometry.
 - (b) Describe the principle and applications of differential centrifugation.
- 2. (a) Describe the principle and applications of Ion exchange chromatography.
 - (b) Describe the principle and applications of electrophoresis.

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, First Semester

Microbiology

BACTERIOLOGY MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Describe the principles of Bacterial taxonomy and classification of Bacteria.
 - (b) Describe the Ultra structure of typical bacterial cell.
- 2. (a) Explain the sterilization methods to control bacterial growth.
 - (b) Write an account on Lyophilization and Cryopreservation.
- 3. (a) Describe the methods of Nutrition in Bacteria.
 - (b) Explain the kinetics of growth in Bacteria and its significance.

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, First Semester

Microbiology

BACTERIOLOGY MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Describe the reproduction and significance of Archaebacteria.
 - (b) Describe the general characters and reproduction in Actinomycetes.
- 2. (a) Describe the characters of Agrobacterium and Bacillus clostridium.
 - (b) Explain the characteristic features of Rhizobium and Rickettsia

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First Semester

Microbiology

BIOLOGY OF EUKARYOTIC MICROBES MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Describe the structure and functions of mitochondria.
 - (b) Describe the structure and functions of Rhibozomes.
- 2. (a) Explain the different stages of mitosis with labelled diagrams.
 - (b) Write an account on the types and structure of cytoskeletal filaments.
- 3. (a) Describe the thallus organisation in Algae.
 - (b) Explain the economic importance of algae.

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First Semester

Microbiology

BIOLOGY OF EUKARYOTIC MICROBES MAXIMUM MARKS :30 ANSWER ALL QUESTIONS

- 1. (a) Describe the modes of nutrition in fungi.
 - (b) Explain the edible and poisonous mushrooms.
- 2. (a) Describe the morphology, nutrition and reproduction in Tryponosoma.
 - (b) Explain the morphology, nutrition and reproduction in giardia.