# ASSIGNMENT 1 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year) MICRO-BIOLOGY Introduction Microorganisms

<b>Q1</b> )	Robert Koch.
Q2)	Germ theory of fermentation.
Q3)	Archaebacteria.
Q4)	Cyanobacteria.
Q5)	Viroids.
<b>Q6</b> )	TMV.
Q7)	Protozoa reproduction.
Q8)	Morphology of Protozoa.

# ASSIGNMENT 2 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year) MICRO-BIOLOGY Introduction Microorganisms

- **Q1**) a) Enumerate the historical development of Microbiology.
  - b) Describe the comparison between prokaryotic and eukaryoric organisms.
- **Q2**) a) Explain the principles of bacterial taxonomy.
  - b) Write an account on the latest classification of Bacteria given by Bergy's.
- Q3) a) Describe the morphology and chemistry of Viruses.
  - b) Describe the methods of transmission of Viruses.
- **Q4**) a) Write an account on the economic importance of Microalgae.
  - b) Describe the reproduction in Fungi.



# ASSIGNMENT 1 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year)

# **MICROBIOLOGY**

# Microbiological Methods

<b>Q1</b> )	Differential staining.
Q2)	Composition of media.
Q3)	Contact slide technique.
Q4)	Serial dilution.
Q5)	TLC
<b>Q6</b> )	Precipitation.
<b>Q</b> 7)	Isoelectric focussing.
08)	GM counter.

# ASSIGNMENT 2 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year)

#### **MICROBIOLOGY**

#### **Microbiological Methods**

- Q1) a) Describe the principle, methodology and applications of Dark field Microscopy.
  - b) Explain the principle, methodology and applications of TEM.
- Q2) a) Describe the maintenance and preservation of microbial cultures.
  - b) Describe the methods of isolation of bacteria.
- **Q3**) a) Describe the methods of cultivation of viruses.
  - b) Describe the principle, methodology and applications of HPLC.
- Q4) a) Write an account on detection and measurement of radio activity.
  - b) Describe the principle, methodology and applications of UV-VIS Spectroscopy.



# ASSIGNMENT 1 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year)

# **MICROBIOLOGY**

# Microbial Physiology and Biochemistry

<b>Q1</b> )	Facilitated diffusion.
Q2)	Passive transport.
<b>Q</b> 3)	Oxygenic photosynthesis.
<b>Q4</b> )	Heterotrophs.
Q5)	Reduction potential.
<b>Q6</b> )	ED pathway.
<b>Q</b> 7)	Classification of enzymes.
<b>Q</b> 8)	Nucleotides.

# ASSIGNMENT 2 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year)

#### **MICROBIOLOGY**

#### Microbial Physiology and Biochemistry

- **Q1**) a) Describe the factors affecting the growth of bacteria.
  - b) Explain the different types of cultures of bacteria.
- **Q2**) a) Describe the photosynthesis in Cyanobacteria.
  - b) Describe hydrogen oxydizers and nitrate oxidizers.
- **Q3**) a) Describe electron transport chain in bacteris.
  - b) Discribe the lactic acid fermentation.
- **Q4**) a) Write an account on the mechanism of enzyme activation.
  - b) Describe the structure and functions of purines and pyaramidines.



# ASSIGNMENT 1 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year)

# **MICRO-BIOLOGY**

# **Environmental and Agricultural Microbiology**

<b>Q</b> 1)	Microorganisms in water bodies.
<b>Q</b> 2)	Coliform test for water quality.
<b>Q</b> 3)	Transformation of nitrogen.
<b>Q4</b> )	Components of soil.
<b>Q</b> 5)	Soil microorganisms.
<b>Q6</b> )	Utilization of Cyanobacteria.
<b>Q7</b> )	Concept of disease in plants.
Q8)	Late Blight of Potato.

# ASSIGNMENT 2 M.Sc. DEGREE EXAMINATION, MAY - 2020 (First Year)

#### **MICRO-BIOLOGY**

#### **Environmental and Agricultural Microbiology**

- Q1) a) Describe the seasonal and diurnal periodicities of air spora.
  - b) Describe the sewage treatment.
- **Q2**) a) Describe the soil organic matter decomposition.
  - b) Write an account on the methods of isolation of soil microflora.
- **Q3**) a) Write an account on VAM fungi.
  - b) Describe the structure and functions of legume root nodules.
- Q4) a) Describe the symptoms, etiology, epidemiology and control of Blast of Rice.
  - b) Describe the development of disease resistant plants.

