Total No. of Questions : 12]

DMB01

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019

(First Year)

MICRO-BIOLOGY

Introduction Microorganisms

Time : 3 Hours **Maximum Marks : 70**

SECTION – A

(5 x 6 = 30)

Answer any Five of the following.

Q1) Robert Koch.

Q2) Germ theory of fermentation.

Q3) Archaebacteria.

Q4) Cyanobacteria.

Q5) Viroids.

Q6) TMV.

Q7) Protozoa reproduction.

Q8) Morphology of Protozoa.

SECTION – B

(4 x 10 = 40)

Answer all Questions.

Q9) a) Enumerate the historical development of Microbiology.

OR

b) Describe the comparison between prokaryotic and eukaryoric organisms.

Q10) a) Explain the principles of bacterial taxonomy.

OR

b) Write an account on the latest classification of Bacteria given by Bergy's.

Q11) a) Describe the morphology and chemistry of Viruses.

OR

b) Describe the methods of transmission of Viruses.

Q12) a) Write an account on the economic importance of Microalgae.

OR

b) Describe the reproduction in Fungi.

Total No. of Questions : 12]

DMB02

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019

(First Year)

MICROBIOLOGY

Microbiological Methods

Time : 3 Hours **Maximum Marks : 70**

SECTION – A

(5 x 6 = 30)

Answer any Five of the following.

Q1) Differential staining.

Q2) Composition of media.

Q3) Contact slide technique.

Q4) Serial dilution.

Q5) TLC

Q6) Precipitation.

Q7) Isoelectric focussing.

Q8) GM counter.

SECTION – B

(4 x 10 = 40)

Answer all Questions.

Q9) a) Describe the principle, methodology and applications of Dark field Microscopy.

OR

b) Explain the principle, methodology and applications of TEM.

Q10) a) Describe the maintenance and preservation of microbial cultures.

OR

b) Describe the methods of isolation of bacteria.

Q11) a) Describe the methods of cultivation of viruses.

OR

b) Describe the principle, methodology and applications of HPLC.

Q12) a) Write an account on detection and measurement of radio activity.

OR

b) Describe the principle, methodology and applications of UV-VIS Spectroscopy.

Total No. of Questions : 12]

DMB03

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019

(First Year)

MICROBIOLOGY

Microbial Physiology and Biochemistry

Time : 3 Hours **Maximum Marks : 70**

SECTION – A

(5 x 6 = 30)

Answer any Five of the following.

Q1) Facilitated diffusion.

Q2) Passive transport.

Q3) Oxygenic photosynthesis.

Q4) Heterotrophs.

Q5) Reduction potential.

Q6) ED pathway.

Q7) Classification of enzymes.

Q8) Nucleotides.

SECTION – B

(4 x 10 = 40)

Answer all Questions.

Q9) a) Describe the factors affecting the growth of bacteria.

OR

b) Explain the different types of cultures of bacteria.

Q10) a) Describe the photosynthesis in Cyanobacteria.

OR

b) Describe hydrogen oxydizers and nitrate oxidizers.

Q11) a) Describe electron transport chain in bacteris.

OR

b) Discribe the lactic acid fermentation.

Q12) a) Write an account on the mechanism of enzyme activation.

OR

b) Describe the structure and functions of purines and pyaramidines.

Total No. of Questions : 12]

DMB04

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019

(First Year)

MICRO-BIOLOGY

Environmental and Agricultural Microbiology

Time : 3 Hours **Maximum Marks : 70**

SECTION – A

(5 x 6 = 30)

Answer any Five of the following.

Q1) Microorganisms in water bodies.

Q2) Coliform test for water quality.

Q3) Transformation of nitrogen.

Q4) Components of soil.

Q5) Soil microorganisms.

Q6) Utilization of Cyanobacteria.

Q7) Concept of disease in plants.

Q8) Late Blight of Potato.

SECTION – B

(4 x 10 = 40)

Answer all Questions.

Q9) a) Describe the seasonal and diurnal periodicities of air spora.

OR

b) Describe the sewage treatment.

Q10) a) Describe the soil organic matter decomposition.

OR

b) Write an account on the methods of isolation of soil microflora.

Q11) a) Write an account on VAM fungi.

OR

b) Describe the structure and functions of legume root nodules.

Q12) a) Describe the symptoms, etiology, epidemiology and control of Blast of Rice.

OR

b) Describe the development of disease resistant plants.