

(DMB01)

Total No. of Questions : 12]

[Total No. of Pages : 2

M.Sc. (Previous) DEGREE EXAMINATION, MAY – 2018

First Year

MICROBIOLOGY

Introduction Microorganisms

Time : 3 Hours

Maximum Marks : 70

SECTION – A

(5 × 6 = 30)

Answer any Five of the following

Q1) Germ theory of diseases

Q2) Louis Pasteur

Q3) Bacillus

Q4) Cyanobacteria

Q5) Viroids

Q6) Prions

Q7) TMV

Q8) T4

SECTION – B

(4 × 10 = 40)

Answer all questions

Q9) a) Write an account on the development of Vaccines.

OR

b) Describe the Ultra structure of Bacteria.

Q10) a) Write an account on the classification of Bacteria based Bergy's manual.

OR

b) Describe the classification and characters of Archaeobacteria.

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

OR

b) Describe the symptoms and methods of transmission of Viruses.

Q12) a) Describe reproduction in Fungi.

OR

b) Write an account on the economic importance of Fungi.



(DMB02)

Total No. of Questions : 12]

[Total No. of Pages : 2

M.Sc. (Previous) DEGREE EXAMINATION, MAY – 2018

First Year

MICROBIOLOGY

Microbiological Methods

Time : 3 Hours

Maximum Marks : 70

SECTION – A

(5 × 6 = 30)

Answer any Five of the following

Q1) Physical methods of sterilization

Q2) Chemical methods of sterilization

Q3) Brewer Jar

Q4) Pyrogalllic acid

Q5) TLC

Q6) Applications of HPLC

Q7) Beer's lambert Law

Q8) GM counter

SECTION – B

(4 × 10 = 40)

Answer all questions of the following

Q9) a) Describe the principle, Methodology and applications of TEM.

OR

b) Describe the composition and preparation of bacteriological media.

Q10) a) Write an account on general methods of isolation of Bacteria.

OR

b) Describe the methods of preservation and maintenance of microbial cultures.

Q11) a) Describe isolation and purification of Viruses.

OR

b) Write an account on the principles of Centrifugation.

Q12) a) Describe two dimensional and pulse field gel electrophoresis.

OR

b) Describe the principle, methodology and applications of IR spectroscopy.



(DMB03)

Total No. of Questions : 12]

[Total No. of Pages : 2

M.Sc. (Previous) DEGREE EXAMINATION, MAY – 2018

First Year

Microbiology

Microbial Physiology and Biochemistry

Time : 3 Hours

Maximum Marks : 70

SECTION – A

(5 × 6 = 30)

Answer any Five of the following

- Q1)** Essential Macronutrients
- Q2)** Nutrient transport in Bacteria
- Q3)** Cyanobacteria
- Q4)** Green bacteria
- Q5)** ATP structure
- Q6)** Oxidation
- Q7)** Classification of enzymes
- Q8)** Properties of Allosteric enzymes

SECTION – B

(4 × 10 = 40)

Answer all questions of the following

- Q9)** a) Describe the typical growth curves of Bacteria.

OR

- b) Describe the various methods of measurement of Bacterial growth.

- Q10)** a) Write an account on sulphur oxidizers.

OR

- b) Describe Nitrate oxidizers and their importance.

Q11) a) Enumerate HMP pathway and its significance.

OR

b) Explain Lactate fermentations and their importance.

Q12) a) Describe the regulation of enzyme activity.

OR

b) Describe the structure and functions of DNA.



(DMB04)

Total No. of Questions : 12]

[Total No. of Pages : 2

M.Sc. (Previous) DEGREE EXAMINATION, MAY – 2018

MICROBIOLOGY

First Year

Environmental and Agricultural Microbiology

Time : 3 Hours

Maximum Marks : 70

SECTION – A

(5 × 6 = 30)

Answer any Five questions from the following

- Q1)** Aeroallergens
- Q2)** Sewage treatment
- Q3)** Components of soil
- Q4)** Transformation of iron in soil
- Q5)** Symbiotic nitrogen fixers
- Q6)** Cyanobacteria as bioinoculants
- Q7)** Soft rot of vegetables.
- Q8)** Black stem rust of wheat

SECTION – B

(4 × 10 = 40)

Answer all questions

- Q9)** a) Describe the seasonal and diurnal periodicities of Air spora.

OR

- b) Describe the methods of treatment of water for drinking purpose.

- Q10)** a) Describe the transformation of phosphorous in soil.

OR

b) Write an account on soil organic matter decomposition.

Q11) a) Describe the structure and functions of legume root nodules.

OR

b) Describe the types of Mycorrhizae and importance of VAM.

Q12) a) Describe the symptoms caused by plant pathogenic Bacteria.

OR

b) Write an account on Biological control of plant diseases.

