(DMB21)

Total No. of Questions : 12] **[Total No. of Pages : 2**

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

Second Year

MICROBIOLOGY

Medical Microbiology

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

SECTION – A **(5 × 6 = 30)**

Answer any Five of the following

Q1) Significance of normal flora

Q2) Interferons

Q3) Vibrio chelerae

Q4) Sporotrichosis

Q5) Chicken pox

Q6) Influenza

Q7) Acyclovir

Q8) Polymyxin - B

SECTION – B **(4 × 10 = 40)**

Answer all of the following

Q9) a) Describe the mechanical barriers to infection.

OR

b) Write an account on Bacterial toxins and their role in Pathogenesis.

Q10) a) Describe the symptoms, epidemiology, diagnosis and control of Mycobacterium tuberculosis.

OR

b) Write an account on Systemic mycosis.

Q11) a) Describe the detailed study of Plasmodium species.

OR

b) Write an account on Measles.

Q12) a) Describe the methods of transmission and control of epidemics.

OR

b) Describe the serological methods of diagnosis of bacterial infections.

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(DMB22)

Total No. of Questions : 12] **[Total No. of Pages : 2**

M.Sc. DEGREE EXAMINATION, MAY – 2018

Second Year

MICROBIOLOGY

Immunology and Cellular Microbiology

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

SECTION – A **(5 × 6 = 30)**

Answer any Five of the following

Q1) B - cells

Q2) Macrophages

Q3) ELISA

Q4) Agglutination

Q5) Phagocytosis

Q6) Induced endocytosis

Q7) Bacterial Pheromones

Q8) Signal transduction in chemosynthesis

SECTION – B **(4 × 10 = 40)**

Answer all of the following

Q9) a) Describe innate and acquired immunity and their importance.

OR

b) Describe nature, structure and functions of Major histocompatability.

Q10) a) Explain the nature, types and functions of antigens and antibodies.

OR

b) Describe the general account of autoimmune diseases and their control.

Q11) a) Write an account on T – complex transfer system in Agrobacterium tumefaciens.

OR

b) Describe the toxins acting on protein synthesis.

Q12) a) Explain cell signaling systems.

OR

b) Write an account on Apoptoxis and induction of apoptoxis by Microbes.

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(DMB23)

Total No. of Questions : 12] **[Total No. of Pages : 02**

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

Second Year

MICROBIOLOGY

Microbial Genetics and Molecular Biology

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

SECTION – A **(5 × 6 = 30)**

Answer any Five of the following

Q1) Plasmids

Q2) Gene mapping in Bacteria

Q3) Denaturation of DNA

Q4) Wobble hypothesis

Q5) Operon concept

Q6) Trp Operon

Q7) IS elements

Q8) Mechanism of transposition

SECTION – B **(4 × 10 = 40)**

Answer all of the following

Q9) a) Describe DNA as genetic material.

OR

b) Describe genetic recombination in Bacteria.

Q10) a) Describe DNA damage and repair mechanisms.

OR

b) Describe various types of Mutations.

Q11) a) Describe the gene expression in Prokaryotes.

OR

b) Explain the genetics of Nitrogen fixation.

Q12) a) Describe DNA finger printing and its importance.

OR

b) Describe the development of transgenic plants and their significance.

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(DMB24)

Total No. of Questions : 12] **[Total No. of Pages : 2**

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

Second Year

MICROBIOLOGY

Food & Industrial Microbiology

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

SECTION – A **(5 × 6 = 30)**

Answer any Five of the following

Q1) Dye Reduction test

Q2) Membrane filtration technique

Q3) Pasteurization of milk

Q4) Microbial spoilage of milk

Q5) Buffers

Q6) Precursors

Q7) Characters of solid state fermentation

Q8) Crystallisation

SECTION – B **(4 × 10 = 40)**

Answer all of the following

Q9) a) Describe the microbial spoilage of vegetables and meat.

OR

b) Describe food preservation methods.

Q10) a) Write an account on single cell proteins.

OR

b) Describe various types of fermented foods and their importance.

Q11) a) Describe various types of fermentors.

OR

b) Describe the methods of strain improvement of industrial microorganisms.

Q12) a) Describe the recovery and purification of fermentation products.

OR

b) Describe the fermentative production of enzyme amylase.

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