(DMB 21)

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

M.Sc. DEGREE EXAMINATION, MAY – 2017

Second Year

MICROBIOLOGY

Medical Microbiology

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

SECTION - A

Answer any FIVE questions from the following **(5 × 6 = 30)**

Q1) Phagocytosis.

Q2) Concept of virulence.

Q3) Vibrio cholerae.

Q4) Candidiasis.

Q5) Oncoviruses.

Q6) Chicken pox.

Q7) Cephalosporins.

Q8) Imidazoles.

SECTION - B

(4 × 10 = 40)

Q9) a) Describe the significance of normal flora.

OR

b) Describe the mechanical barriers to infection.

Q10) a) Write an account on the dermatomycoses.

OR

b) Describe the symptoms, epidemiology, diagnosis and control of the disease caused by Mycobacterium tuberculosis.

Q11) a) Describe the detailed study of the protozoan disease caused by Plasmodium species.

OR

b) Describe the factors responsible for resurgence and emergence of infectious diseases.

Q12) a***)*** Write an account on methods of transmission and control of epidemics in populations.

OR

b) Describe the properties of chemotherapeutic drugs and mode of action.

(DMB 22)

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

M.Sc. DEGREE EXAMINATION, MAY – 2017

Second Year

MICROBIOLOGY

Immunology and Cellular Microbiology

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

SECTION – A

Answer any FIVE questions from the following **(5 × 6 = 30)**

Q1) Cell mediated immunity.

Q2) Cytokines.

Q3) ELISA.

Q4) Complement fixation.

Q5) Phagocytosis.

Q6) Zipper mechanism.

Q7) Signal transduction in chemotaxis.

Q8) Sporulation in *Myxococcus xanthus.*

SECTION – B **(4 × 10 = 40)**

Q9) a) Describe the types of immune responses.

OR

b) Describe the nature, structure and functions of major histocompatability complex.

Q10) a) Write an account on nature, types and functions of antigens and antibodies.

OR

b) Describe the autoimmune diseass and their control.

Q11)a) Describe the molecular mechanism of adhesion and bacterial adhesion.

OR

b) Describe the bacterial toxins.

Q12) a) Describe the cell signaling system.

OR

b) Write an account on Apoptosis.

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(DMB 23)

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

M.Sc. DEGREE EXAMINATION, MAY – 2017

Second Year

MICROBIOLOGY

Microbial Genetics and Molecular Biology

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

SECTION – A

Answer any FIVE questions from the following **(5 × 6 = 30)**

Q1) Significance of plasmids.

Q2) Genetic recombination in T4 phage.

Q3) Renaturation of DNA.

Q4) Triplet code.

Q5) Transcription in prokaryotes.

Q6) Eukaryotic protein synthesis.

Q7) Is elements.

Q8) Concept of rDNA technology.

SECTION – B **(4 × 10 = 40)**

Q9) a) Describe the different theories of gene concept.

OR

b) Describe the genetic recombination in Bacteria.

Q10) a) Describe the DNA damage and repair.

OR

b) Describe the types of mutations.

Q11) a) Describe the Operon concept.

OR

b) Write an account on the regulation of gene expression.

Q12) a) Describe PCR and its applications.

OR

b) Describe the applications of genetic engineering.

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(DMB 24)

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

M.Sc. DEGREE EXAMINATION, MAY – 2017

Second Year

MICROBIOLOGY

Food & Industrial Microbiology

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

SECTION – A

Answer any FIVE questions from the following **(5 × 6 = 30)**

Q1) Most Probable Number Method.

Q2) Electrical impedance method.

Q3) Single Cell Protein.

Q4) Mushroom cultivation.

Q5) Antifoams.

Q6) Components of fermentation media.

Q7) Crystallisation.

Q8) Liquid – liquid extraction.

SECTION – B **(4 × 10 = 40)**

Q9) a) Describe the causes of food spoilage and microbial spoilage of vegetables.

OR

b) Describe the food preservation methods.

Q10) a) Write an account on fermented foods.

OR

b) Describe food poisoning and food borne infections.

Q11)a) Describe the types of fermentors and their applications.

OR

b) Write an account on screening of microorganisms for the production of commercially important metabolites.

Q12) a) Describe the types of culture systems.

OR

b) Write an account on fermentative production of amino acids.

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