

Total No. of Questions : 12]

**DMB21**

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

**(Second Year)**

**MICROBIOLOGY**

**Medical Microbiology**

**Time : 3 Hours**

**Maximum Marks : 70**

**SECTION – A**

**(5 × 6 = 30)**

Answer any Five of the following.

**Q1)** Normal flora of oral cavity.

**Q2)** Flora of urogenital tract.

**Q3)** Vibrio cholerae.

**Q4)** Candidiasis.

**Q5)** Influenza.

**Q6)** Chicken pox.

**Q7)** Nystatin.

**Q8)** Imidazoles.

**SECTION – B**

**(4 × 10 = 40)**

Answer all Questions.

**Q9)** a) Describe the biological barriers to infection.

OR

b) Write an account on phagocytic cells and phagocytosis.

**Q10)** a) Describe the symptoms, epidemiology, diagnosis and control methods of the disease caused by *Mycobacterium tuberculosis*.

OR

b) Write an account on systematic mycoses.

**Q11)** a) Write an account on the viral disease caused by Measles.

OR

b) Describe the protozoan disease caused by *Entamoeba histolytica*.

**Q12)** a) Describe the development of chemotherapy and properties of chemotherapeutic drugs.

OR

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



Total No. of Questions : 12]

**DMB22**

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

**(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)** Eosinophiles.

**Q2)** Basophiles.

**Q3)** RIA.

**Q4)** Autoimmune diseases.

**Q5)** Phagocytosis.

**Q6)** Endocytosis.

**Q7)** Triggering.

**Q8)** Effector molecules of apoptosis.

**SECTION – B**

**(4 × 10 = 40)**

Answer all Questions.

**Q9)** a) Write an account on Humoral and cell mediated immunity.

OR

b) Describe the nature, structure and functions of primary lymphoid organs.

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

OR

b) Write an account on the types of hyper sensitivity reactions.

**Q11)** a) Describe the mechanism of bacterial invasion.

OR

b) Describe the types of secretion systems and secretion apparatus.

**Q12)** a) Describe the cell signalling system.

OR

b) Describe the endocrine hormone signalling.



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**DMB23**

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

**(Second Year)**

**MICRO-BIOLOGY**

**Microbial Genetics and Molecular Biology**

**Time : 3 Hours**

**Maximum Marks : 70**

**SECTION – A**

**(5 × 6 = 30)**

Answer any Five of the following.

**Q1)** Cistron.

**Q2)** Intron.

**Q3)** Triplet code.

**Q4)** Wobble hypothesis.

**Q5)** Transcription in prokaryotes.

**Q6)** Trp operon.

**Q7)** IS elements.

**Q8)** Composite transposons.

**SECTION – B**

**(4 × 10 = 40)**

Answer all Questions.

**Q9)** a) Write an account on plasmids including their significance.

OR

b) Describe the genome organisation and map of T4 phage.

**Q10)** a) Describe the Renaturation and Denaturation of DNA.

OR

b) Write an account on the types of mutations.

**Q11)** a) Describe the regulation of gene expression..

OR

b) Describe the nod genes and their regulation in Rhizobium.

**Q12)** a) Describe the principle, methodology and applications of PCR.

OR

b) Write an account on transgenic plants.



Total No. of Questions : 12]

**DMB24**

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

**(Second Year)**

**MICRO-BIOLOGY**

**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)** ATP photometry.

**Q3)** Quality testing of milk.

**Q4)** Microbial spoilage of milk.

**Q5)** Design of fermenter.

**Q6)** Aeration and agitation.

**Q7)** Cell disruption.

**Q8)** Crystallisation.

**SECTION – B**

**(4 × 10 = 40)**

Answer all Questions.

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

OR

b) Write an account on the food preservation methods.

**Q10)** a) Describe the fermentation production of Vinegar and Cheddar cheese.

OR

b) Write an account on Single Cell Proteins.

**Q11)** a) Describe the components of fermentation media.

OR

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

**Q12)** a) Describe the economic aspects of fermentations.

OR

b) Write an account on fermentation production of antibiotics.

