

M.Sc. (Final) DEGREE EXAMINATION, DECEMBER – 2015

(Examination at the end of Second Year)

MICROBIOLOGY

Paper - V : Medical Microbiology

Time : 3 Hours

Maximum Marks: 80

SECTION-A

Answer Any Five of the following

(5×8=40)

- 1) Complement.
- 2) Inflammation.
- 3) Vibrio cholera.
- 4) Aspergillosis.
- 5) Poliomyelitis.
- 6) Plasmodium.
- 7) Types of epidemics.
- 8) Antibiotics.

SECTION-B

Answer all of the following

(4×10=40)

- 9) Describe different types of chemical barriers to infection?

OR

Write an essay on significance of normal flora?

- 10) Explain symptoms, diagnosis and control mycobacterium tuberculosis?

OR

Write an essay on systemic mycoses?

11) Give a detailed study on onco viruses?

OR

Give a detailed study on plasmodium vivax?

12) Write an essay on methods of transmission and control of epidemics?

OR

Write an essay on cultural methods of diagnosis of bacterial pathogens?



(DMB22)

M.Sc. (Final) DEGREE EXAMINATION, DECEMBER – 2015

Second Year

MICROBIOLOGY

Paper - VI : Immunology And Cellular Microbiology

Time : 3 Hours

Maximum Marks: 80

SECTION-A

Answer Any Five of the following

(5×8=40)

- 1) T cells.
- 2) Primary immune organs.
- 3) RIA.
- 4) Anaphylaxis.
- 5) Induced endocytosis.
- 6) Bacterial adhesions.
- 7) Signal transduction.
- 8) Secondary messengers.

SECTION-B

Answer all of the following

(4×10=40)

- 9) Give a detailed account on Acquired immunities?

OR

Describe the structure and function of major histocompatibility complex?

- 10) Write about structure, types and functions of antibodies?

OR

Write about cell mediated hypersensitivity reactions?

11) Write an essay on different types of Secretion systems with reference to *Agrobacterium tumefaciens*?

OR

Write about mechanisms of bacterial invasions?

12) Describe cell signalling system?

OR

Write about cell-to-cell signalling in prokaryotes?



(DMB23)

M.Sc. (Final) DEGREE EXAMINATION, DECEMBER – 2015

Second Year

MICROBIOLOGY

Paper - VII : Microbial Genetics and Molecular Biology

Time : 3 Hours

Maximum Marks: 80

SECTION -A

(5 × 8 = 40)

Answer any five of the following

- 1) Gene concept.
- 2) Gene map of T₄ phage.
- 3) Denaturation of DNA.
- 4) Triplet code.
- 5) Prokaryotic translation.
- 6) Tryptophan operon.
- 7) Western blotting.
- 8) Transgenic animals.

SECTION -B

(4 × 10 = 40)

Answer All of the following

- 9) Write about different types of bacterial plasmids.

OR

Explain different theories of gene concept.

- 10) Write an essay on DNA repair mechanism.

OR

DNA replication mechanism in Prokaryotes.

11) Write an essay on Operon concept.

OR

Write about transcription regulation of gene expression in prokaryotes.

12) Write an essay on application of genetic engineering.

OR

Write an essay on different types of vectors used in genetic engineering.



(DMB24)

M.Sc. (Final) DEGREE EXAMINATION, DECEMBER – 2015

(Final Year)

MICROBIOLOGY

Paper - VIII : Food and Industrial Microbiology

Time : 3 Hours

Maximum Marks: 80

SECTION -A

(5 × 8 = 40)

Answer any five of the following

- 1) Membrane filtration.
- 2) Sources of microbial food contamination.
- 3) Mushroom cultivation.
- 4) Salmonellosis.
- 5) Types of fermenters.
- 6) Buffers.
- 7) Liquid-Liquid extraction.
- 8) Semi continuous culture.

SECTION -B

(4 × 10 = 40)

Answer All of the following

- 9) a) Write an essay on food spoilage.

OR

- b) Write about different methods of food preservation.

- 10) a) Write an essay on food borne infections.

OR

- b) Define pasteurization and explain the process of Pasteurization.

11) a) Describe the process of screening of microorganisms for the production of commercially important metabolites.

OR

b) Write an essay on component parts of fermentation process.

12) a) Describe the fermenter design of SSF and its advantages and disadvantages.

OR

b) Describe the process of fermentative production of Glutamic acid.

