

SEPTEMBER 1991

M.Sc. DEGREE EXAMINATION, SEPTEMBER 1991.

(Non-Clinical — Subjects for Science Graduates)

Branch V — Microbiology — Final

GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time : Three hours.

Maximum : 100 marks.

Answer ALL questions.

All questions carry equal marks.

1. Write an essay on 'Toxins of Bacterial'.
 2. Discuss the various sites of action of antibiotics on bacteria. Write in detail the antibiotic sensitivity tests.
 3. Discuss 'cancer immunity'.
 4. Write briefly on :
 - (a) Joseph Lister.
 - (b) Sterilisation Indicators.
 - (c) Heterophile antigen.
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APRIL 1992

M.Sc. (NON CLINICAL) DEGREE EXAMINATION

FACULTY OF MEDICINE

FINAL

BRANCH V - MICROBIOLOGY

Paper I - General Bacteriology and
Immunology

Time: Three Hours

Maximum Marks:100

Answer All questions

All questions carry Equal Marks

1. Define the term 'cell-mediated Immunity',
Discuss its mechanism and the current
concepts of Interleukins.
 2. Discuss the principles, mechanism of function,
types and applications of Electron microscopy.
 3. Write an essay on 'Hybridoma technology' and
its applications in Diagnostic Microbiology.
 4. Write short notes on:
 - a. Sterilisation indicators.
 - b. Laminar-Flow cabinets.
 - c. Tissue Typing.
 - d. Redox-Potential.
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M.Sc. DEGREE EXAMINATION, SEPTEMBER, 1992

(Non clinical subjects for Science graduates)

BRANCH V - MICROBIOLOGY FINAL

Paper I - GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time: Three hours Maximum: 100 marks

Answer ALL questions

All questions carry equal marks

1. Define 'Immuno assays'. Clarify immuno assays and describe in detail 'ELISA'.
 2. Discuss the various sites of action of antibiotic on bacteria. Write in detail the antibiotic sensitivity tests.
 3. What is bacterial transformation? Describe its mechanism and its applications in Microbiology and Biotechnology.
 4. Write briefly on:
 - (a) Plasmids
 - (b) Antibiotic policy
 - (c) Fermentors
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APRIL 1993

M.Sc. (NON-CLINICAL) DEGREE EXAMINATION

BRANCH V - MICROBIOLOGY

Time : Three hours

Maximum 100 marks

Paper I GENERAL BACTERIOLOGY AND IMMUNOLOGY

Answer All Questions.

1. Define and classify Sterilisation. Write in detail about "Steam under pressure method." (25)
 2. Mention in detail about the routine tests generally used in bacteriological examination of water. (25)
 3. What are immunoglobulins? Mention the principles involved in various Antigen-Antibody reactions. Give examples for each (25)
 4. Write short notes on (5 * 5 = 25)
 - a. Toxin-Antitoxin Assay
 - b. Dark field (dark ground) Microscope
 - c. Identification of Bacteria
 - d. T and B lymphocytes
 - e. Herd immunity
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NOVEMBER 1993

M.SC (NON CLINICAL) DEGREE EXAMINATION

FINAL BRANCH V MICROBIOLOGY

PAPER I GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time: Three hours

Max.marks:100

Answer All Questions

All Questions Carry equal marks

1. *Discuss biological characteristics of the complement with special reference to sequences of its activation. (25)*
 2. *Discuss the role of various D.N.A methods in Clinical Microbiology. (25)*
 3. *Give an account of immuno-deficiency diseases and their laboratory diagnosis. (25)*
 4. *Write short notes on: (5 x 5 = 25)*
 - (a) *Adjuvants*
 - (b) *Anaerobic methods of cultivation*
 - (c) *Plasmids*
 - (d) *L-forms*
 - (e) *Toxin-Anti toxin Assay*
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APRIL 1994

M.SC (NON CLINICAL) DEGREE EXAMINATION

FINAL SEM V MICROBIOLOGY

PAPER I GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time : Three hours

Max.marks: 100

Answer ALL-Questions.

All Questions Carry Equal marks.

1. Describe the principle and applications of electron Microscopy in Microbiology. (25)
 2. Give an account of T-Lymphocytes and B-Lymphocytes in immune response. (25)
 3. Briefly describe the impact of hybridoma technology on the understanding and study of Microbial diseases. (25)
 4. Write short notes on: (5 x 5 = 25)
 1. Gaseous disinfectants
 2. Exotoxins
 3. Graft versesHost reactions
 4. Growth curve
 5. Transport media
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APRIL 1995

[SB 327]

M.Sc. (Non-Clinical) DEGREE EXAMINATION.

Final — Branch V — Microbiology

Paper I — GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time : Three hours.

Maximum : 100 marks.

Answer ALL questions.

All questions carry equal marks.

1. Describe the Nomenclature and activities of complement proteins. Briefly describe the various pathways of complement. (25)
 2. Describe briefly the Genotypic and Phenotypic variations in Bacterial Genetics. (25)
 3. Define Histocompatibility Antigens and discuss briefly its role in Transplantation. (25)
 4. Write short notes on : (5 × 5 = 25)
 - (a) Interleukins.
 - (b) Pyrogen test.
 - (c) Hospital infection.
 - (d) Autoclave.
 - (e) Hapten.
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NOVEMBER 1995

NB 320

M.Sc. (Non-Clinical) DEGREE EXAMINATION

Final - Branch V - Microbiology

Paper I - GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time: Three hours

Max. marks: 100

Answer All Questions

All Questions carry equal marks

1. Briefly describe various cell co-operation in the antibody response. (25)
 2. Describe the principles and application of fluorescent microscope in Microbiology. (25)
 3. Give a brief account of role of Macrophages in Immunology. (25)
 4. Write short notes on: (5x5=25)
 - (a) Cytokines
 - (b) Germ free animal
 - (c) Plasmid
 - (d) Monoclonal antibody
 - (e) Shwartzman reaction
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OCTOBER 1996

PK 224

M.Sc.(Non-clinical) DEGREE EXAMINATION

Final - Branch V - Microbiology

Paper I - GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time: Three hours

Max.marks:100

Answer All Questions

All questions carry equal marks

1. Give a brief and concise account of the central dogma of molecular biology with reference to the normal gene organization and regulation of the bacterial cell. (25)
 2. Describe the determinants of innate immunity in man. (25)
 3. Describe the nomenclature, chemical make-up, mode of action and pathogenic effects of the toxins of bacteria. (25)
 4. Write briefly on: (5x5=25)
 - (a) Possible mechanisms involved in the development of autoimmunity
 - (b) Historical aspect of germ theory versus spontaneous generation theory.
 - (c) Tell tale indicators used to monitor surgeon's autoclave
 - (d) L-phase organisms (L-forms of bacteria)
 - (e) Flagella.
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APRIL 1997

MP 289

M.Sc.(Non-Clinical) DEGREE EXAMINATION

Final - Branch V - Microbiology

Paper I - GENERAL BACTERIOLOGY AND IMMUNOLOGY

Time: Three hours

Max.marks:100

Answer All Questions

All questions carry equal marks

1. Discuss the structure and functions of DNA containing bodies in a bacterial cell. (25)
 2. Enumerate the various physical methods of sterilization. Discuss the process of steam sterilization in detail. (25)
 3. Discuss the role of complement in various immunodiagnostic tests giving relevant examples. (25)
 4. Write briefly on: (5x5=25)
 - (a) Halophilic bacteria
 - (b) Gram's stain
 - (c) Transposon
 - (d) Robert Koch
 - (e) Prozone phenomenon.
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