

[LF 1014]

OCTOBER 2014

Sub. Code: 1252

**M.Sc MEDICAL LABORATORY TECHNOLOGY EXAMINATION  
(2013-2014 Batch onwards)  
FIRST YEAR  
PAPER II – GENERAL BACTERIOLOGY IMMUNOLOGY  
AND PARASITOLOGY**

*Q.P. Code : 281252*

**Time : Three hours**

**Maximum : 100 marks**

**I. Elaborate on :**

**(2 x 20 = 40)**

1. Humoral and cell mediated immunity
2. Sterilization and disinfection methods

**II. Write notes on :**

**(10 x 6 = 60)**

1. Electron microscopy
2. Anaerobic cultivation of bacteria
3. Plasmids
4. Morphology of bacteria
5. Immunization schedule
6. Agglutination reactions
7. Any two autoimmune disorders
8. Helminths
9. Classification of protozoa
10. Any two diagnostic methods in parasitology

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[LH 0415]

OCTOBER 2015

Sub. Code: 1252

**M.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION**

**(From 2013-2014 Batch onwards)**

**FIRST YEAR**

**PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY  
AND PARASITOLOGY**

*Q.P. Code : 281252*

**Time: Three Hours**

**Maximum: 100 marks**

**Answer ALL questions**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Sterilization methods.
2. Physical, mechanical barriers, genetic factors involved in Innate immunity.

**II. Write Notes on:**

**(10 x 6 = 60)**

1. Principle and uses of Transmission electron microscope.
2. Cold Sterilization.
3. Functions of different types of plasmids.
4. Distinguish immediate and delayed hypersensitivity.
5. Mechanism of Phagocytosis.
6. Types of vaccines.
7. Any 2 antigen antibody reactions with example.
8. Helminths.
9. Properties of protozoa involved in production of disease.
10. Structural characteristics of Trematode.

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[LJ 1016]

OCTOBER 2016

Sub. Code: 1252

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS  
FIRST YEAR  
PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND  
PARASITOLOGY**

*Q.P. Code: 281252*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Cell mediated and humoral immunity.
2. Classification of protozoa and laboratory methods used in their diagnosis.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Anaerobic methods of cultivation of bacteria.
2. Structure of bacterial cell with a diagram.
3. Principle of dark field microscopy.
4. Modes of spread of infectious diseases and methods of prevention.
5. Any three virulent factors of bacteria.
6. Structure and function of IgM antibody.
7. Principle of Mantoux test.
8. Contribution of Alexander Fleming to the field of microbiology.
9. Life cycle of *Ascaris lumbricoides*.
10. Any three autoimmune diseases and the laboratory methods used for their diagnosis.

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[LK 0517]

MAY 2017

Sub. Code: 1252

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS  
FIRST YEAR  
PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND  
PARASITOLOGY**

*Q.P. Code: 281252*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Physical methods of sterilization.
2. Antigen-antibody reactions and their applications in diagnosis of infectious diseases.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Growth curve of bacteria.
2. Bacterial conjugation.
3. Type IV hypersensitivity reaction.
4. Contributions of Robert Koch to the field of microbiology.
5. Principle of electron microscopy.
6. Immune cells involved in natural immunity.
7. Any three commonly used disinfectants in clinical laboratories and their mode of action.
8. Classification of protozoa.
9. Laboratory diagnostic methods used for intestinal parasites.
10. Schistosomiasis.

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[LL 1017]

OCTOBER 2017

Sub. Code: 1252

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS  
FIRST YEAR  
PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND  
PARASITOLOGY**

*Q.P. Code: 281252*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Classification of sterilization and write in detail about the chemical methods of sterilization.
2. Plasmodium species and lab diagnosis of Malaria.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Contribution of Louis Pasteur to the field of microbiology.
2. Bacterial spores.
3. Principles of electron microscopy.
4. Hydatid cyst.
5. Classification of bacterial culture media.
6. Principle behind Enzyme Linked Immunosorbent Assay (ELISA) test.
7. Structure and function of IgG antibody.
8. Lab diagnosis of ascaris lumbricoides.
9. Cell mediated immunity.
10. Bacterial cell wall.

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[LN 1018]

OCTOBER 2018

Sub. Code: 1252

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS  
FIRST YEAR  
PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND  
PARASITOLOGY**

*Q.P. Code: 281252*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Types, principles and applications of various Sterilization methods.
2. Pathogenesis, life cycle, diagnosis, prevention and treatment of *Plasmodium falciparum*.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Nutritional requirements of bacteria.
2. Principle and working mechanism of Dark field Microscopy.
3. Types and functions of plasmids.
4. Tumour antigens.
5. Types of grafts based on its rejection phenomenon.
6. Structure and functions of IgM.
7. Laboratory diagnosis of Leishmaniasis.
8. Life cycle of blood fluke.
9. Classify cestodes with examples.
10. Opportunistic infections caused by Protozoa.

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[LP 1019]

OCTOBER 2019

Sub. Code: 1252

**M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS  
FIRST YEAR  
PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND  
PARASITOLOGY**

*Q.P. Code: 281252*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain in detail about the sample collection, transport and lab diagnosis of Pulmonary and Extra Pulmonary Tuberculosis.
2. Define the terms Sterilization, Disinfection and Antisepsis and describe in detail about the physical methods of Sterilisation.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Define Monoclonal Antibody and its uses.
2. Type IV Hypersensitivity.
3. Write short notes on Haemagglutination test with example.
4. McFarland standard.
5. Biosafety cabinet – principle and uses.
6. Amoebiasis.
7. Lab diagnosis of Urinary tract infection.
8. Enumerate the parasites identified by peripheral smear.
9. Stool concentration and preservation techniques.
10. Lab diagnosis of *Trichomonas vaginalis* infection.

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[LQ 1019]

NOVEMBER 2020  
(MAY 2020 EXAM SESSION)

Sub. Code: 1252

M.Sc. MEDICAL LABORATORY TECHNOLOGY  
FIRST YEAR

PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND  
PARASITOLOGY

*Q.P. Code: 281252*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Define Sterilization. Write in detail Physical methods of sterilization including Quality Control.
2. Describe the structure of Immunoglobulin including Classification. Write the functions of IgM Antibody.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Dark ground Microscopy.
2. Anaerobic methods of Cultivation of bacteria.
3. Role of Plasmids in antibiotic resistance.
4. Human Gastrointestinal Protozoans.
5. Immunization schedule for the new-born baby up to 1 year.
6. Types of Biosafety Cabinets.
7. Laboratory diagnosis of any two Auto-Immune Disorders.
8. Classification of Hyper-sensitivity.
9. Laboratory Diagnosis of Blood Parasites.
10. Life cycle of *Ascaris lumbricoides*.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0321]**

**MARCH 2021**

**Sub. Code: 1252**

**(OCTOBER 2020 EXAM SESSION)**

**M.Sc. MEDICAL LABORATORY TECHNOLOGY**

**FIRST YEAR (2011-2012 Regulation - From 2013-2014 onwards)**

**PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND PARASITOLOGY**

***Q.P. Code : 281252***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Define Sterilization. Elaborate on chemical methods of sterilization.
2. Classification of Hyper sensitivity reactions with suitable examples.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Principle and uses of florescent microscopy.
2. Chemical methods of disinfection.
3. Tests useful for identification of bacteria.
4. Tumourmarkers.
5. Bacterial capsule and its functions.
6. Antigen presenting cells.
7. Gastro intestinal nematodes.
8. Laboratory diagnosis of leishmaniasis.
9. Laboratory diagnosis of any two autoimmune diseases.
10. Differential identification of species of malarial parasite in the peripheral blood.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[AHS 0921]**

**SEPTEMBER 2021  
(MAY 2021 EXAM SESSION)**

**Sub. Code: 1252**

**M.Sc. MEDICAL LABORATORY TECHNOLOGY  
FIRST YEAR (2011-2012 Regulation - From 2013-2014 onwards)  
PAPER II – GENERAL BACTERIOLOGY, IMMUNOLOGY AND  
PARASITOLOGY  
*Q.P. Code : 281252***

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Write in detail Physical methods of sterilization high lighting the advantages and disadvantages of each method.
2. Write in detail structure of a prokaryotic cell. Elaborate on the structure and functions of the flagella of bacteria.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Growth curve of bacteria.
2. Bacterial spores.
3. Type IV hypersensitivity reaction.
4. Koch's postulates and its relevance in Medical Microbiology.
5. Types of Electron microscopy and applications in Microbiology.
6. Immune cells involved in natural immunity.
7. Methods of transmission of Bacterial Antibiotic resistance.
8. Structure and function of IgA antibody.
9. Write in detail laboratory diagnosis of any two Blood parasites.
10. Methods of identification of intestinal protozoans in stool sample.

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