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

[AHS 0222] **FEBRUARY 2022** **Sub. Code: 1252**
(OCTOBER 2021 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR
(Candidates admitted from 2011-2012 & 2013-2014 onwards - Paper II)
(Candidates admitted from 2020-2021 onwards - Paper III)
PAPER II & III – 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. Explain in detail about Hypersensitivity and describe type IV hypersensitivity.
2. Enumerate intestinal nematodes. Describe the lifecycle, pathogenicity and lab diagnosis of round worm.

II. Write notes on: **(10 x 6 = 60)**

1. Write in detail about fluorescence microscope.
2. Explain about Capsule staining of bacteria.
3. Write about mode of action and application of any 3 disinfectants.
4. Briefly explain Southern blotting technique.
5. Describe Agglutination reactions.
6. Define and explain Natural immunity.
7. Write a brief note on mode of transmission of parasites.
8. Classify Protozoa.
9. Write about Opportunistic parasitic infections any 2 in detail.
10. Describe briefly about Dry heat sterilization method.

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

[AHS 1022] **OCTOBER 2022** **Sub. Code: 1252**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR (Regulation from 2011–2012)
(Candidates admitted from 2013-2014 onwards - Paper - II)
(Candidates admitted from 2020-2021 onwards - Paper - III)
PAPER II & III – 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. Describe in detail the mechanisms of Drug resistance in bacteria with examples.
2. Enumerate antigen antibody reactions. Describe the principle of Enzyme Linked Immuno Sorbent Assay (ELISA).

II. Write notes on: **(10 x 6 = 60)**

1. Non-heat Sterilisation methods.
2. Morphology of Gram negative cell wall.
3. Automated methods to identify bacteria.
4. Stool concentration techniques.
5. Lab diagnosis of Malaria.
6. Cell mediated immunity.
7. Draw the common nematode eggs seen in stool samples.
8. Production of Monoclonal antibodies and their applications.
9. Enumerate various disinfectants and their application.
10. Type 1 Hypersensitivity reaction.

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

[AHS 0523] **MAY 2023** **Sub. Code: 1252**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR
(Candidates admitted from 2020-2021 Batch onwards)
PAPER III – 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. Enumerate antigen antibody reactions. Describe Agglutination reactions and their applications.

2. Classify Culture media. Describe each one of them with examples. Add a note on Quality control.

II. Write notes on: **(10 x 6 = 60)**

1. Bacterial toxins.
2. Quality control in antibiotic susceptibility testing.
3. Sterilisation indicators.
4. Bacterial plasmids.
5. HLA typing methods.
6. Western blot technique.
7. Coomb's test.
8. Lab diagnosis of Amoebic dysentery.
9. Life cycle of Plasmodium falciparum.
10. Laboratory diagnosis of lymphatic filariasis.

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

[AHS 1023] **OCTOBER 2023** **Sub. Code: 1252**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER III – 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. Define Hypersensitivity. Write in detail about the Type I and II Hypersensitivity.

2. Define Immunity. Classify its types.

II. Write notes on: **(10 x 6 = 60)**

1. Contributions of Robert Koch.
2. Dark Field Microscope and its applications.
3. Growth requirements of bacteria.
4. Pasteurization.
5. Immunofluorescence.
6. Amoebic Dysentery.
7. Life cycle of Round worm.
8. Sources of Infection.
9. Chemical sterilization.
10. Nosocomial Infection.

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

[AHS 0524] **MAY 2024** **Sub. Code: 1252**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER III – 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. Define Sterilization. Write in detail about the physical methods of sterilization.

2. Describe the etiology, pathogenesis and Laboratory diagnosis of Malaria.

II. Write notes on: **(10 x 6 = 60)**

1. Contributions of Louis Pasteur.
2. Fluorescence Microscope and its applications.
3. Dry heat sterilization.
4. Anaerobic culture methods.
5. Anaphylaxis.
6. Opportunistic parasitic infections.
7. Life cycle of Pin worm.
8. Type I Hypersensitivity.
9. ELISA and its types.
10. Immunization Schedule.

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

[AHS 1024] **OCTOBER 2024** **Sub. Code: 1252**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER III – 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. Enumerate the Intestinal Protozoa. Describe the life cycle, pathogenesis and Lab diagnosis of Entamoeba histolytica.

2. Define Immunity. Write in detail about the Immunization schedule.

II. Write notes on: **(10 x 6 = 60)**

1. Contributions of Joseph Lister.
2. Moist Heat Sterilization.
3. Antibiotic susceptibility testing.
4. Sources of Infection.
5. Radio Immuno Assay.
6. Type IV Hypersensitivity.
7. Life cycle of Hook worm.
8. Aerobic culture methods.
9. Hydatid cyst.
10. Fluorescence microscope and its applications.

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

[AHS 0525] **MAY 2025** **Sub. Code: 1252**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER III – 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. Define sterilization. What are the types? Explain in detail about disinfection and add a note on uses, advantages and applications of disinfectants.

2. Write an account on antigen antibody reactions.

II. Write notes on: **(10 x 6 = 60)**

1. Gram negative bacterial cell wall.
2. Contributions of Robert Koch to the field of microbiology.
3. Antibiotic sensitivity methods.
4. Structure and functions of Immunoglobulin A.
5. Principle, types and uses of Enzyme Linked Immunosorbent Assay (ELISA) test.
6. Active immunity.
7. Life cycle of Giardia lamblia.
8. Pathogenesis of hydatid disease.
9. Morphology of microfilariae.
10. Diagnostic methods for the examination of parasites.

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

[AHS 1025] **OCTOBER 2025** **Sub. Code: 1252**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
FIRST YEAR (From 2020-2021 onwards)
PAPER III – 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. Types, Sources, modes of transmission and prevention of hospital acquired infection.

2. Diagnostic methods in parasitology.

II. Write notes on: **(10 x 6 = 60)**

1. Principle and uses of dark field microscopy.
2. Moist heat sterilization methods.
3. Bacterial plasmids.
4. Growth requirement of bacteria.
5. Principle and types of agglutination reactions.
6. Cell mediated immunity.
7. Any three autoimmune disorders.
8. Pathogenesis and clinical features of Tapeworm infections.
9. Life cycle of Plasmodium falciparum.
10. Write a brief note on mode of transmission of parasites.

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