[LH 0415] **OCTOBER 2015** **Sub. Code: 1262**

M.Sc. (MEDICAL LABORATORY TECHNOLOGY) DEGREE EXAMINATION

(From 2013-2014 Batch onwards)

SECOND YEAR

PAPER II – SYSTEMATIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code : 281262

Time: Three Hours **Maximum: 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 20 = 40)**

1. Morphology, pathogenesis, clinical syndromes, laboratory diagnosis, prevention and treatment of *Mycobacterium tuberculosis.*
2. Diagnostic methods of fungi.

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

1. Types of Streptococci.
2. Morphological features of Treponema.
3. Distinguishing features of Clostridia.
4. Clinical symptoms, prophylaxis and treatment of Plague causing bacteria.
5. Properties of viruses.
6. Laboratory diagnosis of Rabies viruses.
7. Morphology of HIV.
8. Systemic fungal infections.
9. Any 2 opportunistic fungal infections.
10. Staining methods of fungi.

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[LJ 1016] OCTOBER 2016 **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Replication modes of viruses.
2. Biochemical tests useful for diagnosis of bacterial infections.

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

1. Diphtheria immunization.
2. Morphology and culture characteristics of *Neisseria meningitides.*
3. Interferons.
4. Rabies diagnosis.
5. Candidiosis.
6. Transmission of arboviruses.
7. Real Time PCR.
8. Trichophyton.
9. Antifungal agents and their mechanism.
10. Diagnosis of fungal infections.

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[LL 1017] OCTOBER 2017 **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss the opportunistic fungal infections and their diagnosis.

2. Name the bacteria causing sexually transmitted disease. Discuss the laboratory diagnosis of syphilis.

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

1. Inclusion bodies.
2. Western blot technique.
3. Significance of Rotavirus.
4. Dengue fever.
5. Dimorphic fungi.
6. Histoplasmosis.
7. Cryptococcus neoformans.
8. Nocardia.
9. Weil-felix test.
10. Corynebacterium diphtheria.

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[LN 1018] OCTOBER 2018 **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Classify Vibrio. Write about the morphology, pathogenesis and Lab diagnosis of cholera.

2. Describe the aetiology and pathogenesis, Laboratory diagnosis and Prophylaxis of Polio.

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

1. Quellung reaction.
2. Chemoprophylaxis of Meningococcal meningitis.
3. TPHA.
4. Uro pathogenic E-coli.
5. BCG Vaccine.
6. Automated methods of M.TB culture.
7. Cytopathic Effect.
8. Cytomegalo virus.
9. Candidosis.
10. Trichophyton.

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[LP 1019] OCTOBER 2019 **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY EXAMS
SECOND YEAR
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Classify Mycobacteria. Discuss in detail about the etiology, pathogenesis and lab diagnosis of Mycobacterium tuberculosis.

2. Classify Herpes virus. Discuss in detail the morphology, pathogenesis and lab diagnosis of Herpes simplex.

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

1. Toxins of Staphylococcus aureus.
2. ELISA.
3. Swine flu.
4. Dimorphic fungi.
5. Lab diagnosis of leptospirosis.
6. Botulism.
7. ELT or vibrios.
8. Hospital acquired Infection.
9. Aspergillosis.
10. Cultivation of viruses.

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

[LQ 1220] **DECEMBER 2020** **Sub. Code: 1262**
(MAY 2020 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY

SECOND YEAR – (Regulation 2011 – 2012 & 2013-2014)

PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. CODE: 281262

Time: Three hours **Maximum: 100 Marks**

Answer ALL Questions

I. Elaborate on: **(2 x 20 = 40)**

1. Enumerate DNA viruses. Discuss about Herpes viruses.
2. Define Nosocomial Infections. Explain about the types, sources, pathogens involved, prevention and control measures.

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

1. Types and applications of Polymerase Chain Reaction.
2. Laboratory diagnosis of *Mycobacterium Tuberculosis.*
3. Zoonotic diseases.
4. Lab diagnosis and pathogenesis of *Leptospira.*
5. List out the Opportunistic Fungal Infections. Explain any one in detail.
6. Mycotoxins.
7. Ringworm fungi.
8. Cryptococcal Meningitis.
9. Replication of Viruses.
10. Confirmatory tests for HIV.

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

[AHS 0321] MARCH 2021 Sub. Code: 1262

(OCTOBER 2020 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY

SECOND YEAR (2011-2012 Regulation - From 2013-2014 onwards)

PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code : 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Classify Staphylococci. Describe the Pathogenesis, Clinical Syndromes, Laboratory Diagnosis, Prevention and Treatment of *Staphylococcus aureus.*

2. Enumerate the RNA Viruses. Describe the Morphology, Pathogenecity and Laboratory Diagnosis of Rabies Virus. Add a note on Antirabies Prophylaxis.

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

1. Name the Organisms that cause Enteric fever. Describe the Laboratory Diagnosis of Typhoid.
2. Types of Bacterial media and its uses.
3. Lab Diagnosis, Transmissions and Pathogenicity of Pertussis.
4. Write in detail about the Laboratory Diagnosis of Fungal Infections.
5. List the Opportunistic Fungi. Write in detail about Aspergillosis.
6. Write about the Types and Control of Hospital Acquired Infections.
7. Immunization Schedule for Polio. Add a note on Prophylactic measures of Polio.
8. Describe the Morphology, Lab Diagnosis and Prevention of Hepatitis B virus.
9. Describe the Clinical features of Orthomyxoviruses.
10. Write in detail about the Biomedical Waste handling in the Laboratories.

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

[AHS 0921] **SEPTEMBER 2021** **Sub. Code: 1262**
(MAY 2021 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (2011-2012 Regulation - From 2013-2014 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY
Q.P. Code : 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Morphology, Pathogenesis, Clinical Syndromes, Laboratory Diagnosis, Prevention and Treatment of *Streptococcus Pneumoniae.*
2. Opportunistic Infections of Fungi.

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

1. Laboratory Diagnosis of Syphilis.
2. Collection and Transport of various samples for Bacterial Diagnosis.
3. Lab Diagnosis, Transmissions and Pathogenicity of Pertussis.
4. Prevention and Control of Hospital Acquired Infections.
5. Dermatophytes.
6. Infections of *Candida spp.*
7. Pathogenesis of HBV.
8. Inclusion bodies of Viruses.
9. Prevention of Rabies.
10. Severe Acute Respiratory Syndrome

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

[AHS 0122] **JANUARY 2022** **Sub. Code: 1262**
(OCTOBER 2021 EXAM SESSION)

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (Regulation 2011-2012 & from 2013-2014 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY
Q.P. Code : 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Enumerate arboviruses in India describe in detail the pathogenesis laboratory diagnosis, prevention and control of dengue fever.
2. Classify of Streptococci . Discuss in detail about clinical features of pathogenesis and diagnosis of S.pnemoniae and S. Pyogenes.

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

1. Toxoplasmosis.
2. Laboratory diagnosis of blood stream infection.
3. Realtime PCR.
4. Gonorrhea.
5. Western blot technique.
6. Staining methods of fungi.
7. Corynebacterium diphtheria.
8. Candidiasis.
9. Dermatophytes.
10. Hepatitis B infection.

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

[AHS 0522] **MAY 2022** **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (Regulation 2011-2012 & from 2013-2014 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY
Q.P. Code : 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Enumerate Streptococci, discuss in detail about clinical features of pathogens and diagnosis of S.Pneumoniae and S.Pyogens.

2. Discuss in detail about the morphology, pathogenesis, laboratory diagnosis and prophylaxis of hepatitis B virus.

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

1. Nocardia.
2. Gonorrhea.
3. Western blot technique.
4. Cryptococcus neoformans.
5. Trichophyton.
6. Candidiasis.
7. Staining methods of fungi.
8. Mucormycosis.
9. Dengue fever.
10. Herpes simplex.

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

[AHS 1022] **OCTOBER 2022** **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (Regulation 2011-2012)
(Candidates admitted from 2013-2014 & 2020-2021 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code : 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Write about the morphology, pathogenesis and Lab diagnosis of Corynebacterium diphtheriae.

2. Describe the aetiology and pathogenesis, Laboratory diagnosis and Prophylaxis of Rabies.

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

1. Lab diagnosis of fungal infection.
2. Describe the clinical features of HIV.
3. RT PCR.
4. Laboratory diagnosis of Syphilis.
5. DTP Vaccine.
6. Culture media.
7. Mycotoxins.
8. Poliovirus.
9. Lab diagnosis of Cholera.
10. Dermatophytosis.

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

[AHS 0523] **MAY 2023** **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR
(Candidates admitted from 2020-2021 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss in detail about the etiology, pathogenesis and lab diagnosis of Yersinia pestis.

2. Classify Herpes virus. Discuss in detail about the morphology, pathogenesis and lab diagnosis of Herpes simplex.

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

1. Quellung reaction.
2. Types of ELISA.
3. Opportunistic mycoses.
4. COVID - 19.
5. Lab diagnosis of Syphilis.
6. DTP Vaccine.
7. Arbo viruses.
8. Sub cutaneous mycoses.
9. Antirabies Prophylaxis.
10. Cultivation of viruses.

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

[AHS 1023] **OCTOBER 2023** **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (From 2020-2021 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss in detail about the morphology, pathogenesis, laboratory diagnosis of Treponema pallidum.

2. Define Mycoses. Explain about the sources, pathogenesis and Lab diagnosis of Ringworm fungi.

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

1. Types and applications of ELISA.
2. Laboratory diagnosis of Plaque.
3. Clinical features of HIV.
4. Lab diagnosis and pathogenesis of Vibrio.
5. Lyme disease.
6. Pyogenic Meningitis.
7. Pathogenesis and Lab diagnosis of Bordetella pertussis.
8. Lab diagnosis of Syphilis.
9. Replication of Viruses.
10. Prophylaxsis of Polio.

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

[AHS 0524] **MAY 2024** **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (From 2020-2021 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. Describe the morphology, pathogenesis and lab diagnosis of Salmonella. Give a short account of prevention of Salmonella.

2. Define Gas gangrene. Write about the morphology, culture characters, pathogenesis and Laboratory diagnosis of Clostridium.

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

1. Sources and Prophylaxis of HIV.
2. Laboratory diagnosis of Syphilis.
3. Lab diagnosis and pathogenesis of Leptospira.
4. Lyme disease.
5. Pyogenic Meningitis.
6. Pathogenesis and Lab diagnosis of Bordetella pertussis.
7. Lab diagnosis of fungal infection.
8. Clinical features of Rabies.
9. Types and applications of PCR.
10. Antibiotic Sensitivity testing.

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

[AHS 1024] **OCTOBER 2024** **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (From 2020-2021 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2x20=40)**

1. Write about the morphology, pathogenesis and Lab diagnosis of Treponema pallidum.

2. Discuss in detail the morphology, pathogenesis and lab diagnosis and prophylaxis of Hepatitis B Virus.

II. Write notes on: **(10x6=60)**

1. Opportunistic fungal Infections.
2. Lab diagnosis of Cholera.
3. Candidiasis.
4. Pulmonary tuberculosis.
5. Differential staining.
6. Rabies Vaccine.
7. Arbo viruses.
8. Gonorrhea.
9. Bacillary dysentery.
10. Lab diagnosis of mycoses.

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

[AHS 1025] **OCTOBER 2025** **Sub. Code: 1262**

M.Sc. MEDICAL LABORATORY TECHNOLOGY
SECOND YEAR (From 2020-2021 onwards)
PAPER II – SYSTEMIC BACTERIOLOGY, VIROLOGY AND MYCOLOGY

Q.P. Code: 281262

Time: Three hours **Answer ALL Questions** **Maximum: 100 Marks**

I. Elaborate on: **(2x20=40)**

1. Describe the Morphology, Cultural characteristics, Pathogenesis, Laboratory Diagnosis, prevention and treatment of Bacillus anthracis.

2. Enumerate the agents causing Systemic Mycosis. Discuss the morphology and Lab diagnosis of Histoplasmosis and Cryptococcosis.

II. Write notes on: **(10x6=60)**

1. Morphology and pathogenesis of Chlamydia.
2. Pathogenesis and clinical features of Helicobacter pylori.
3. Diagnosis of Salmonella typhi.
4. Typhus fever.
5. Staining methods of fungi.
6. Dermatophytes.
7. Briefly explain about the types of Herpes viruses. Add a note on the diagnosis of Herpes simplex viruses.
8. Write a short note on antigenic structures and pathogenesis of Hepatitis B virus.
9. What are TORCH infections? Add a note on its diagnosis and prevention methods.
10. Discuss the methods involved in diagnosis of Human immunodeficiency virus.

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