

APRIL 2001

[KD 881]

Sub. Code : 5033

**B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.**

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Enumerate the fungi causing superficial and subcutaneous mycoses. Describe the laboratory diagnosis of superficial mycoses. (25)
 2. List the agents causing bacterial meningitis. Describe the morphology, cultural characters, pathogenesis and laboratory diagnosis of any one of them. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Chocolate Agar.
 - (b) Transport medium.
 - (c) Preservation of microorganisms.
 - (d) Agglutination.
 - (e) Egg inoculation techniques.
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APRIL 2003

[KI 881]

Sub. Code : 5033

B.Sc. (Medical Laboratory Technology)

DEGREE EXAMINATION.

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Name the causative agent for syphilis. Describe the laboratory diagnosis of syphilis. (25)
 2. Enumerate the viruses causing hepatitis. Describe the morphology and laboratory diagnosis of Hepatitis B virus. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Tissue culture.
 - (b) Preservation of micro-organisms.
 - (c) Mycetoma.
 - (d) Widal test.
 - (e) Mac Conkey medium.
-

NOVEMBER 2003

[KJ 881]

Sub. Code : 5033

**B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.**

Third Year

***Paper III — MICROBIOLOGY — II**

Time : Three hours

Maximum : 100 marks

Two hours and forty

Sec. A & Sec. B : 80 marks

minutes for Sec. A and Sec. B

Twenty minutes for Sec. C

Section C : 20 marks

Answer Sections A and B in the SAME Answer Book.

Answer Section C in the Answer Sheet provided.

SECTION A — (2 × 15 = 30 marks)

1 Describe the morphology of mycobacterium tuberculosis. Write about the laboratory diagnosis of Pulmonary tuberculosis. (15)

2 Enumerate the Arboviruses. Write about the mode Transmission, laboratory diagnosis and complications Dengue Fever. (15)

SECTION B — (10 × 5 = 50 marks)

3. Short notes on :

- (a) Phage typing
- (b) Quellung Reaction.
- (c) Lab diagnosis of urinary tract infections.
- (d) Hospital acquired infections
- (e) Laboratory diagnosis of Rabies.
- (f) Cytopathic effects.
- (g) Candida albicans.
- (h) Taenia versicolor.
- (i) Aspergillosis.
- (j) Sporotrichosis.

AUGUST 2004

[KL 881]

Sub. Code : 5033

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

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours Maximum : 100 marks

**Sec. A & B : Two hours and Sec. A & B : 80 marks
forty minutes**

Sec. C : Twenty minutes Sec. C : 20 marks

Answer Sections A and B in the SAME Answer Book.

Answer Section C in the Answer Sheet provided.

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

1. Write about the morphology of Rabies virus and briefly mention about the specific prophylaxis and antirabic treatment. (15)

2. How do you classify vibrio cholera and write briefly about the laboratory diagnosis of vibrio cholera? (15)

SECTION B — (10 × 5 = 50 marks)

3. Write short notes on :

- (a) Coagulase test.**
- (b) Quellung reaction.**
- (c) Vectors in typhus fever.**
- (d) Lepromin test.**
- (e) Viral Haemagglutination test.**
- (f) Gas gangrene.**
- (g) Candida infection.**
- (h) Disk Diffusion method.**
- (i) Serological test for syphilis.**
- (j) Nosocomial infection.**

FEBRUARY 2005

[KM 881]

Sub. Code : 5033

**B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.**

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours Maximum : 100 marks

Sec. A & B : Two hours and forty minutes Sec. A & B : 80 marks

Section C : Twenty minutes Section C : 20 marks

Answer Sections A and B in the **SAME** Answer Book.

Answer Section C in the answer sheet provided.

SECTION A — (2 × 15 = 30 marks)

1. Write briefly about the causative agent and laboratory diagnosis of syphilis. (15)
2. Classify Arboviruses. Write about the isolation and serological tests for the virus causing dengue fever. (15)

SECTION B — (10 × 5 = 50 marks)

3. Write short notes on :
- (a) Tissue culture
 - (b) Cryptococcosis

- (c) Widal test
- (d) Bacteriophage
- (e) Egg inoculation
- (f) *Penicillium Masneffi*
- (g) Identification of tubercle bacilli
- (h) Blood culture
- (i) Coagulase test
- (j) Laboratory diagnosis of Enteric fever

AUGUST 2005

[KN 881]

Sub. Code : 5033

**B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.**

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours

Maximum : 100 marks

**Sec. A & B : Two hours and
forty minutes**

Sec. A & B : 80 marks

Sec. C : Twenty minutes

Sec. C : 20 marks

Answer Sections A and B in the SAME answer book.

Answer Section C in the answer sheet provided.

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

- 1. Write briefly about the morphology of HIV and write about the laboratory diagnosis of HIV infection.**
- 2. How do you classify corynebacterium Diphtheria and write about the laboratory diagnosis of corynebacterium diphtheria?**

SECTION B — (10 × 5 = 50 marks)

3. Write short notes on :

- (a) Widal test**
- (b) Methods of culture of Tubercle bacilli**
- (c) Paul Bunnell test**
- (d) Vectors of arthropod borne infection**
- (e) Virus cultivation**
- (f) Urinary tract infection**
- (g) Brucellosis**
- (h) Dermatophytes**
- (i) Transport medium for vibrio cholera**
- (j) Methicillin resistant staphylococcus aureus**

MARCH 2006

[KO 881]

Sub. Code : 5033

B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours Maximum : 100 marks

Sec. A & B : Two hours and Sec. A & B : 80 marks
forty minutes

Sec. C : Twenty minutes Sec. C : 20 marks

Answer Sections A and B in the SAME Answer Book.

Answer Section C in the Answer Sheet provided.

Answer ALL questions.

SECTION A — (2 × 15 = 30 marks)

1. Name the organisms that can cause enteric fever.
Describe laboratory diagnosis of typhoid. (15)

2. Describe various methods of cultivation of viruses.
(15)

SECTION B — (10 × 5 = 50 marks)

3. Write short notes on :

- (a) *Candida albicans*
- (b) VDRL test.
- (c) Polio vaccines.
- (d) Antibiotic susceptibility tests.
- (e) Staining techniques for fungi.
- (f) Culture of gonococcus.
- (g) Laboratory diagnosis of pulmonary tuberculosis.
- (h) Satellitism.
- (i) Viral inclusion bodies.
- (j) *Aspergillus fumigatus*.

AUGUST 2006

[KP 881]

Sub. Code : 5033

**B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.**

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours

Maximum : 100 marks

**Descriptive : Two hours and
forty minutes**

Descriptive : 80 marks

Objective : Twenty minutes

Objective : 20 marks

Answer ALL questions.

Write essays on :

1. What are sexually transmitted diseases?
Enumerate the organisms causing sexually transmitted
diseases. Write in detail about the laboratory Diagnosis
of Syphilis. (20)

2. Classify streptococci. Write in detail the
morphology cultural character, pathogenicity and lab
diagnosis of streptococcus pyogenes. (15)

3. Discuss the various mechanism of action of
antibiotics. Add a note on genetic basis of drug
resistance in Bacteria. (15)

4. Write short notes on :

(6 × 5 = 30)

- (a) ELISA Technique
 - (b) WIDAL reaction
 - (c) Viral Vaccines
 - (d) Cryptococcal meningitis
 - (e) Hemophilus ducrey
 - (f) Atypical Mycobacteria.
-

AUGUST 2007

[KR 881]

Sub. Code : 5033

**B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.**

Third Year

Paper III — MICROBIOLOGY — II

Time : Three hours Maximum : 100 marks
Descriptive : Two hours and Descriptive : 80 marks
forty minutes
Objective : Twenty minutes Objective : 20 marks

Answer ALL questions.

I. Essay : (2 × 15 = 30)

**(1) List the causative agents of pneumonia.
Describe in detail the morphology, cultural
characteristics and lab diagnosis of pneumococci.**

**(2) Name the viruses that are transmitted by
blood transfusion. Explain the morphology, lab diagnosis
and prophylaxis of hepatitis B virus.**

II. Write Short Notes on : (10 × 5 = 50)

- (a) Selective media**
- (b) Dimorphic fungi**

- (c) Dermatophytes**
 - (d) Kirby-Bauer disc diffusion technique**
 - (e) Lyophilization**
 - (f) Egg inoculation**
 - (g) ELISA**
 - (h) Common laboratory animals**
 - (i) Standard tests for syphilis**
 - (j) Tube agglutination test.**
-

August-2008

[KT 881]

Sub. Code : 5033

**B.Sc. (Medical Laboratory Technology) DEGREE
EXAMINATION.**

Third Year

Paper III — MICROBIOLOGY — II

Q.P. Code : 725033

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Essays : (2 × 15 = 30)

- 1. Classify Fungi. Describe laboratory diagnosis of dermatophytes. (15)**
- 2. Describe morphology, isolation and identification of *Vibrio cholerae*. (15)**

II. Write Short notes on : (10 × 5 = 50)

- 1. Preservation of Micro-organisms.**
- 2. Coagulase test.**
- 3. Egg inoculation techniques.**

4. Negri bodies.
 5. Hepatitis B vaccine.
 6. Different types of ELISA technique.
 7. Specific tests for syphilis.
 8. Clostridium botulinum.
 9. Antibiotics acting on cell-wall.
 10. Mycetoma
 6. Define pulse polio immunisation.
 7. What is germ tube test? Give an example.
 8. Name four diagnostic tests for Leptospirosis.
 9. What are the different methods of antibiotic susceptibility tests?
 10. Define MIC and MBC.
-

III. Short answer questions : (10 × 2 = 20)

1. Classify bacteria according to morphology in Gram stain and give examples.
2. How do you differentiate Staphylococcus aureus and coagulase negative staphylococcus in the laboratory?
3. What are the clinical manifestations caused by Streptococcus pyogenes?
4. What are the media used for transport and isolation of gonococci from clinical specimens?
5. Name the organisms causing meningitis and the culture media for their isolation.

B.Sc. (Medical Laboratory Technology) DEGREE EXAMINATION

THIRD YEAR

Paper III – MICROBIOLOGY - II

Q.P. Code : 725033

Time : Three hours

Maximum : 100 marks

Answer All questions.

I. Essays :

(2X15=30)

1. Enumerate the DNA viruses. Give an account of herpes group of viruses.
2. Classify staphylococci. Indicate their cultural characteristics. Enumerate the lesions produced by staphylococci.

II. Write Short Notes on :

(10X5=50)

1. Aspergilloma.
2. Clostridium botulinum.
3. Lowenstein – Jensen's medium.
4. Lepromatous leprosy.
5. Mycotic mycetoma.
6. Antibigram sensitivity.
7. Tube coagulase test.
8. Germ tube test.
9. Lab diagnosis of typhoid fever.
10. Laminar air flow.

III. Short Answer Questions:

(10X2=20)

1. Name two important serum markers of hepatitis B viral infection.
2. Mention two infections caused by Adenovirus.
3. Name the different routes of egg inoculation techniques.
4. Name the different types of tissue culture.
5. What is Rabies? What is the name of inclusion bodies? (in rabies).
6. What are the different types of enzyme linked immunosorbant assays?
7. Name two diagnostic tests for polio virus.
8. Name four viruses that caused diarrhea.
9. What are the opportunistic infections in HIV (Human immuno Deficiency virus) leading on to AIDS?
10. Name two confirmatory tests for HIV infection.

August 2010

[KX 881]

Sub. Code: 5033

B.Sc. (Medical Laboratory Technology) DEGREE EXAMINATION

THIRD YEAR

Paper III – MICROBIOLOGY - II

Q.P. Code : 725033

Time : Three hours

Maximum : 100 marks

Answer All questions.

I. Essays :

(2X15=30)

1. Enumerate the bacteria causing diarrhoeal diseases in Man. Write down the morphology, cultural characteristics and laboratory diagnosis of *Vibrio cholera*.
2. Enumerate RNA viruses. Describe the pathogenecity and laboratory diagnosis of Rabies virus. Add a note on Anti rabies prophylaxis.

II. Write Short Notes on :

(10X5=50)

1. Inclusion bodies.
2. Lyophilisation.
3. *Candida albicans*.
4. CAMP reaction.
5. Polymerase chain reaction.
6. Virulence of *Pneumococci*.
7. Non suppurative lesion caused by *strepto. Pyogenes*.
8. Zoonotic diseases.
9. Malignant Pustule.
10. *Lactobacillus*.

III. Short Answer Questions:

(10X2=20)

1. Name clinical infections caused by *Esch. Coli*.
2. *Smegma bacilli*.
3. Stalactite growth.
4. Specific test for diagnosis of HIV infection.
5. Measles vaccine.
6. Co-cultivation.
7. Negri bodies.
8. Name some dimorphic fungi.
9. Raynauld's Brand Phenomenon.
10. Anaerobic spore bearers.

August 2011

[KZ 0811]

Sub. Code: 5033

**B.SC. MEDICAL LABORATORY TECHNOLOGY
DEGREE EXAMINATION**

THIRD YEAR

PAPER II – MICROBIOLOGY II

Q.P. Code : 725033

Time: Three hours

Maximum: 100 Marks

Answer All Questions

I. Elaborate on :

(3 x 10 = 30)

1. ELISA.
2. Bacteriophage.
3. HIV infection.

II. Write notes on :

(8 x 5 = 40)

1. ZN stain.
2. Non sporing aerobes.
3. Widal test.
4. Nosocomial infection.
5. Common infections by staphylococcus specimen.
6. Action of Penicillin.
7. PCR.
8. Vaccines.

III. Short Answers on :

(10 x 3 = 30)

1. Name transport media for cholera.
2. Staining techniques for fungus.
3. Composition of blood agar.
4. V.P. reaction.
5. Immunofluorescence technique.
6. Name some pathogenic gram positive cocci.
7. Aspergillum.
8. Tissue culture.
9. Capsular staining.
10. Antigens of HIV.

February 2012

[LA 0212]

Sub. Code: 5033

B.Sc. MEDICAL LABORATORY TECHNOLOGY DEGREE

EXAMINATION

THIRD YEAR

PAPER III – MICROBIOLOGY-II

Q.P. Code : 725033

Time : Three hours

Maximum : 100 marks

Answer All questions.

I. Elaborate on :

(3 X 10=30)

1. Enumerate antigen antibody reactions. Discuss in detail about ELISA and its applications.
2. Describe the morphology, lab diagnosis and prevention of Hepatitis B virus.
3. List opportunistic fungi. Write in detail about aspergillosis.

II. Write notes on :

(8X 5 = 40)

1. Lab diagnosis of polio.
2. Tissue culture
3. Media used in mycology
4. Screening and Confirmatory tests for HIV
5. Laboratory diagnosis of dermatophytes
6. Cryptococcus neoformans
7. Western blot
8. Rabies vaccine

III. Short Answers on :

(10X 3 = 30)

1. Interferon's.
2. Name three opportunistic fungi
3. Germ tube test
4. Classification of fungi with examples
5. Enumerate four dimorphic fungi
6. Wood's Lamp
7. Cytopathic effect with examples
8. Tzanck smear
9. Draw and label HIV virus
10. Routes of Egg inoculation

[LD 0212]

AUGUST 2013

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR
PAPER III – MICROBIOLOGY - II**

Q.P. Code : 725033

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Elaborate on:

(3x10 = 30)

1. Give the morphology, cultural characters, pathogenicity and lab diagnosis of *Vibrio cholerae*.
2. Write in detail about the laboratory diagnosis of Fungal infection.
3. Explain the morphology, pathogenesis, clinical findings and laboratory diagnosis of HIV. Add a note on its prophylactic measures.

II .Write Notes on:

(8x5 = 40)

1. Bacterial Meningitis.
2. Dermatophytosis.
3. Serological diagnosis of Syphilis.
4. Enteric fever.
5. List out the general properties of viruses.
6. Antibiotic susceptibility test.
7. Collection and transport of various samples for bacterial disease diagnosis.
8. Immunization schedule for polio virus and add a note on prophylactic measures of polio.

III. Short Answers on:

(10x3 = 30)

1. Widal test
2. H₁N₁ Virus
3. Selenite F broth
4. Define Zoonosis. Give examples
5. Name four opportunistic fungal infections
6. Oral thrush
7. TPHA
8. CAMP test
9. Name some water and food borne bacterial infection
10. DPT Vaccine

[LF 0212]

AUGUST 2014

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR
PAPER III – MICROBIOLOGY - II**

Q.P. Code : 725033

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Disc diffusion susceptibility tests.
2. Write on
 - a) Severe Acute Respiratory Syndrome (SARS).
 - b) Bioterrorism.
3. Illustrate the reproduction of fungus with diagram.

II .Write Notes on:

(8 x 5 = 40)

1. Discuss The Pathogenicity and Lab diagnosis Of Chlamydiae.
2. Discuss The Significance Of Q Fever.
3. Discuss The Significance Of Weil-Felix Reaction.
4. Discuss The Clinical Feature and Types Of Rickettsial Infections.
5. Discuss The Clinical Feature and Pathogenicity Vincent's Angina.
6. Describe The Clinical Feature and Pathogenicity Relapsing Fever.
7. Describe The Specific Treponemal Tests.
8. Describe The Pathogenesis and Epidemiology Of Smallpox Virus.

III. Short Answers on:

(10 x 3 = 30)

1. Shigellosis.
2. Enteric fever.
3. Bubonic plague.
4. Undulant fever.
5. Whooping cough.
6. Virion.
7. Lysogenic cycle.
8. Cytopathic effect.
9. Candidiasis.
10. Cryptococcosis.

[LG 0215]

FEBRUARY 2015

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR
PAPER III – MICROBIOLOGY - II**

Q.P. Code : 725033

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Discuss the aetiology of common device associated hospital infections.
2. Describe the replication of viruses.
3. Specimen collection and processing of fungal infection.

II .Write Notes on:

(8 x 5 = 40)

1. Lab diagnosis, transmissions and pathogenicity of Pertussis.
2. Briefly describe laboratory diagnosis of infections caused by M.tb.
3. Discuss the epidemiology, pathogenesis and laboratory diagnosis of rickettsial infections.
4. Discuss the direct microscopical examination of dermatophytes.
5. Discuss the pathogenicity and epidemiology of paramyxoviruse.
6. Discuss the pathogenesis and epidemiology of polioviruses.
7. Discuss the broad spectrum antibiotics and antimicrobial resistance.
8. Describe about blood culture.

III. Short Answers on:

(10 x 3 = 30)

1. Methicillin resistant S. Aureus.
2. Lancefield grouping.
3. PYR (pyrrolidonyl) test.
4. Elek plate toxigenicity test.
5. Morphology and culture characteristics C. Diphtheriae.
6. Sandwich ELISA.
7. Counter immunoelectrophoresis.
8. Ringworm fungi.
9. Mycetoma.
10. Oxidase test.

[LH 0815]

AUGUST 2015

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR
PAPER III – MICROBIOLOGY - II**

Q.P. Code : 725033

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Describe in detail the pathogenesis, lab diagnosis and immunoprophylaxis of Poliomyelitis.
2. Describe pathogenesis and lab diagnosis of Leptospirosis.
3. Describe the Pathogenesis, lab diagnosis and treatment of Typhoid fever.

II. Write Notes on:

(8 x 5 = 40)

1. Cholera- lab diagnosis.
2. Dermatophytes.
3. How will you maintain stock cultures?
4. Pathogenesis of Syphilis.
5. Antibiotic susceptibility testing.
6. How will you cultivate Fungi in the lab?
7. Opportunistic Mycosis.
8. Infections caused by Staphylococcus aureus.

III. Short Answers on:

(10 x 3 = 30)

1. Name 3 bacteria causing Urinary tract infection.
2. How is urine collected for culture? What precautions should you advice to take while collecting the urine sample?
3. Name 3 viruses causing Diarrhoea.
4. Western blotting.
5. Classify bacteria based on morphology.
6. How will you process CSF samples for culture in the lab?
7. Name 3 Mycotoxins.
8. Name 3 microorganisms causing respiratory tract infections.
9. How will you preserve sera?
10. How will you prepare antibiotic disks?

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR
PAPER III – MICROBIOLOGY - II**

Q.P. Code : 725033

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Describe in detail the pathogenesis and lab diagnosis of Mycobacterium tuberculosis with a note on recent advances.
2. Describe the pathogenesis, lab diagnosis and immunoprophylaxis of Rabies virus.
3. Describe the Pathogenesis, lab diagnosis and treatment of cholera.

II. Write Notes on:

(8 x 5 = 40)

1. Typhoid fever.
2. Weil's disease.
3. Poliomyelitis.
4. Dermatophytes.
5. Lab diagnosis of Fungi.
6. How will you maintain stock cultures?
7. Write a short note on antibiotic susceptibility testing in the lab.
8. How will you cultivate viruses?

III. Short Answers on:

(10 x 3 = 30)

1. How will you prepare antibiotic disks?
2. How is blood collected for culture? What precautions should you take while collecting?
3. Name 3 fungi causing superficial infections of the skin.
4. ELISA.
5. Classify bacteria based on morphology.
6. Western blotting.
7. Draw the structure of Aspergillus niger in LPCB mount.
8. How will you cultivate viruses?
9. Name 3 fungi causing opportunistic infections.
10. Name 3 microorganisms causing eye infections.

[LJ 0816]

AUGUST 2016

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR
PAPER III – MICROBIOLOGY – II**

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the pathogenesis and lab diagnosis of Poliovirus. Add a note on its prophylaxis.
2. Describe the Pathogenesis and lab diagnosis of Vibrio cholera. Add a note on its prophylaxis.
3. Enumerate opportunistic fungal infections. Describe in detail Candidiasis.

II. Write notes on:

(8 x 5 = 40)

1. Antibiotic susceptibility testing.
2. How do you maintain stock cultures?
3. Mycetoma.
4. Rabies vaccine.
5. H1N1 virus.
6. Standard precautions.
7. Lab diagnosis of M tuberculosis.
8. Dermatophytes.

III. Short answers on:

(10 x 3 = 30)

1. Describe dimorphic fungi with examples.
2. Draw and label HIV.
3. Hepatitis B vaccine.
4. Name three organisms causing food poisoning.
5. Name three viruses causing diarrhoea.
6. How do you collect blood for culture?
7. Name three enrichment media and its use.
8. Classify streptococci.
9. Name three Arboviral infections seen in INDIA.
10. Cytopathic effect.

[LK 0217]

FEBRUARY 2017

Sub. Code: 5033

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the pathogenesis and lab diagnosis of Salmonella Typhi. Add a note on its prophylaxis.
2. Describe the Pathogenesis and lab diagnosis of Hepatitis B virus. Add a note on its prophylaxis.
3. Describe in detail the pathogenesis and lab diagnosis of dermatophytes.

II. Write notes on:

(8 x 5 = 40)

1. Lab diagnosis of fungal infections.
2. Antibiotic susceptibility testing.
3. Nosocomial infections.
4. MMR vaccine.
5. Biomedical waste handling in the laboratories.
6. Polymerase chain reaction (PCR).
7. Lab diagnosis of C diphtheria.
8. Lab diagnosis of HIV.

III. Short answers on:

(10 x 3 = 30)

1. Germ tube test.
2. Name three infections produced by Aspergillus sp.
3. Name three organisms causing sexually transmitted disease.
4. Name three subcutaneous mycoses.
5. Describe the method of urine collection for culture.
6. Name three oncogenic viruses.
7. Write three differences between Classical vibrio and Eltor Vibrio.
8. Name three zoonotic infections.
9. Cultivation of M tuberculosis.
10. Quality control in serology.

[LL 0817]

AUGUST 2017

Sub. Code: 5033

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the pathogenesis and lab diagnosis of Rabies virus. Add a note on its prophylaxis.
2. Describe the Pathogenesis and lab diagnosis of Vibrio cholera. Add a note on its prophylaxis.
3. Enumerate opportunistic fungal infections. Describe in detail Candidiasis.

II. Write notes on:

(8 x 5 = 40)

1. Laboratory acquired infections.
2. Antibiotic susceptibility testing.
3. Lyophilisation.
4. BCG vaccine.
5. Biosafety cabinet.
6. VDRL test.
7. Mycetoma.
8. Difference between Orthomyxovirus and Paramyxovirus.

III. Short answers on:

(10 x 3 = 30)

1. Screening for MRSA carrier state.
2. Hepatitis B vaccine.
3. What are the precautions required while working in TB lab.
4. Name three microorganisms causing dysentery.
5. Describe the method of processing CSF sample for culture.
6. Name three infections transmitted through blood transfusion.
7. Write three difference between Classical vibrio and Eltor Vibrio.
8. Mycotoxins.
9. Window period.
10. Name three continuous cell lines.

[LM 0218]

FEBRUARY 2018

Sub. Code: 5033

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the pathogenesis and lab diagnosis of Poliovirus. Add a note on its prophylaxis.
2. Describe the Pathogenesis and lab diagnosis of C diphtheriae. Add a note on its prophylaxis.
3. Describe in detail sample collection and processing for fungal infections.

II. Write notes on:

(8 x 5 = 40)

1. Dermatophytes.
2. Lab diagnosis of Cholera.
3. How do you maintain stock cultures?
4. Anaerobic culture methods.
5. Rabies vaccine.
6. H1N1 virus.
7. Standard precautions.
8. Lab diagnosis of M tuberculosis.

III. Short answers on:

(10 x 3 = 30)

1. Describe dimorphic fungi with examples.
2. Draw and label HIV.
3. MMR vaccine.
4. Name three organisms causing food poisoning.
5. Name three viruses causing diarrhoea.
6. Describe sample collection for blood culture.
7. Name three enrichment media and its use.
8. Classify streptococci.
9. Name three Arboviral infections seen in INDIA.
10. Cytopathic effect.

[LN 0818]

AUGUST 2018

Sub. Code: 5033

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe about the pathogenesis and laboratory diagnosis of *Mycobacterium tuberculosis*. Add a note on prophylaxis.
2. Describe about the pathogenesis and laboratory diagnosis of HIV. Add a note on prophylaxis.
3. Explain about virus replication.

II. Write notes on:

(8 x 5 = 40)

1. Leptospirosis.
2. Write a note on Polymerase Chain Reaction.
3. Viral Diarrhoea.
4. Rabies virus.
5. Laboratory diagnosis of fungi.
6. Virus cultivation methods.
7. Streptococci.
8. Waste handling in laboratories.

III. Short answers on:

(10 x 3 = 30)

1. Candidiasis.
2. Weil's disease.
3. Mention any three microorganisms causing respiratory infections.
4. Nosocomial infections – Define and give two examples.
5. Give three examples for enrichment media.
6. What is window period? Give two examples.
7. Hepatitis – B virus.
8. Viral food poisoning.
9. BCG Vaccine.
10. Give a note on standard lab precautions.

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the pathogenesis and laboratory diagnosis of Rabies. Write a note on Post exposure prophylaxis.
2. Name the organisms that can cause Enteric fever. Describe the laboratory diagnosis of Typhoid.
3. Classify Fungi. Describe in detail the laboratory diagnosis of Dermatophytes.

II. Write notes on:

(8 x 5 = 40)

1. Kirby-Bauer Disc diffusion method.
2. Opportunistic fungal Infections.
3. Laboratory Diagnosis of Syphilis.
4. Laboratory Diagnosis of Gas Gangrene.
5. Methicillin Resistant Staphylococcus aureus.
6. Dimorphic Fungi.
7. Hospital Acquired Infections.
8. Egg Inoculation Techniques.

III. Short answers on:

(10 x 3 = 30)

1. Hanging drop technique.
2. Pneumococcal vaccine.
3. How will you dispose the following:
(a) Used Needles (b) Soiled gauze (c) Urinary catheter tube
4. Transport medium for Gonococci.
5. Causative agent and diagnostic test for Scrub typhus.
6. Oxidase test.
7. Confirmatory test for (a) HIV (b) Hepatitis B virus (c) Hepatitis C virus
8. Germ Tube Technique.
9. Name three Bacteria causing Urinary Tract Infection.
10. Three examples for Selective media.

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe the pathogenesis and laboratory diagnosis of Cholera.
2. Enumerate Human Herpes Viruses. Discuss the pathology and laboratory diagnosis of Varicella Zoster Virus infection.
3. Classify Deep Mycotic infections. Discuss in detail the laboratory diagnosis of Mycotic Mycetoma.

II. Write notes on:

(8 x 5 = 40)

1. Laboratory Diagnosis of Polio.
2. Laboratory Diagnosis of M.tuberculosis.
3. Widal test.
4. Antimicrobial Susceptibility testing.
5. Westernblot for HIV.
6. Hospital Acquired Infections.
7. Candida albicans.
8. Markers for Hepatitis B virus infection.

III. Short answers on:

(10 x 3 = 30)

1. Name three DNA virus.
2. Confirmatory tests for HIV.
3. H1N1.
4. Name three Gram positive bacilli.
5. Lancefield Grouping of beta hemolytic Streptococci.
6. Preparation of Antibiotic Discs.
7. Satellitism.
8. Personal Protective Equipments.
9. India Ink preparation.
10. Hepatitis B vaccine.

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Maximum: 100 Marks

Answer all questions

I. Elaborate on:

(3 x 10 = 30)

1. Name the causative agent for syphilis. Describe the pathogenesis and laboratory diagnosis of syphilis.
2. List opportunistic fungi. Write in detail about aspergillosis.
3. Describe the pathogenesis and lab diagnosis of hepatitis B virus. Add a note on its prophylaxis.

II. Write notes on:

(8 x 5 = 40)

1. Laboratory diagnosis of HIV infection.
2. Western blot.
3. Hand hygiene.
4. Maintenance of stock cultures.
5. Media used in mycology.
6. Laboratory diagnosis of viral infections.
7. Laboratory diagnosis of anthrax.
8. Biomedical waste management.

III. Short answers on:

(10 x 3 = 30)

1. Rabies vaccine.
2. Transport media for vibrio cholera.
3. Morphology and culture characteristics C. diphtheriae
4. Oxidase test.
5. Methicillin resistant staphylococcus aureus.
6. Stalactite growth.
7. Cell lines.
8. Three opportunistic fungal infections.
9. Lepromin test.
10. VDRL.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 5033

**BACHELOR IN MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR – (Regulation from 2010-2011)
PAPER III – MICROBIOLOGY – II
Q.P. Code: 725033**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Specimen collection and processing of fungal infection.
2. Enumerate the viruses transmitted through blood transfusion. Describe the pathogenesis and lab diagnosis of Hepatitis virus .
3. List the causative agents of Pneumonia. Describe in detail the morphology, cultural characters and lab diagnosis of pneumonia.

II. Write notes on:

(8 x 5 = 40)

1. Beta lactum agents.
2. Tissue culture.
3. Western blot.
4. Non sporing aerobes.
5. Cryptococcus neoformans.
6. Immunization schedule for polio virus and add a note on prophylactic measures of polio.
7. Media used in mycology.
8. Discuss the broad spectrum antibiotics and antimicrobial resistance.

III. Short answers on:

(10 x 3 = 30)

1. Oxidase test.
2. TPHA.
3. Wood's lamp.
4. Composition of Blood agar
5. Germ tube test.
6. Stains to demonstrate metachromatic granules.
7. Stalactite growth.
8. Counter immunoelectrophoresis.
9. Anaerobic spore bearers.
10. What are the precautions to be taken while preparing or observing smears for AFB?

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

[AHS 0122]

JANUARY 2022

Sub. Code: 5033

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR – (Regulation from 2010-2011)

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Laboratory diagnosis of enteric fever and note on its prevention.
2. Define nosocomial infections. Discuss the aetiology of common device associated hospital infections.
3. Write about classification of dermatophytes. Add note on laboratory diagnosis of dermatophytes.

II. Write notes on:

(8 x 5 = 40)

1. How do you segregate biomedical waste using various color coded bins.
2. Elaborate Rapid Plasma regain test.
3. Write the principle and procedure of Acid fast staining.
4. PCR.
5. Testing for bacteriology of water.
6. Cultivation of viruses.
7. Prophylaxis in Hepatitis B infection.
8. Common infections caused by Staphylococcus.

III. Short answers on:

(10 x 3 = 30)

1. Name some dimorphic fungi.
2. Lepromin test.
3. Routes of Egg inoculation.
4. TPHA.
5. Define septicemia.
6. Virion.
7. Classify fungal infections.
8. Window period.
9. Write three differences between Classical Vibrio and Eltor Vibrio.
10. Write two pigment producing bacteria.

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

[AHS 0922]

SEPTEMBER 2022

Sub. Code: 5033

(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

B.Sc. MEDICAL LABORATORY TECHNOLOGY

THIRD YEAR – (Regulation from 2010-2011)

PAPER III – MICROBIOLOGY – II

Q.P. Code: 725033

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. What are sexually transmitted diseases? Enumerate the organisms causing sexually transmitted disease. Write in detail about lab diagnosis of Syphilis.
2. Enumerate RNA viruses. Describe the pathogenicity and diagnosis of Rabies virus. Add a note on acute rabies.
3. Lab diagnosis of dermatophytes.

II. Write notes on:

(8 x 5 = 40)

1. Antibiotic susceptibility testing.
2. Infections caused by Staphylococcus aureus.
3. Describe about blood culture.
4. Discuss the significance of 'Q' fever.
5. Discuss the significance of Weil-Felix reaction.
6. Enteric fever.
7. Lab diagnosis of polio.
8. Screening and confirmatory tests for HIV.

III. Short answers on:

(10 x 3 = 30)

1. Shigellosis.
2. RNTCP grading of Acid fast bacilli.
3. Bubonic plague.
4. Undulant fever.
5. H1N1 virus.
6. Selenite F broth.
7. Define zoonosis. Give examples.
8. Name four opportunistic fungal infections.
9. CAMP test.
10. DPT vaccine.

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

[AHS 0423]

APRIL 2023

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011 & 2018-2019 onwards)
PAPER III – MICROBIOLOGY – II
Q.P. Code: 725033**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Describe the Morphology, Cultural characteristics, Pathogenesis and Laboratory diagnosis of *Bacillus anthracis*. Add a note on Anthrax and its types.
2. Describe in detail about multiplication of Virus.
3. Elaborate on the Pathogenesis and Laboratory diagnosis of Dermatophytes.

II. Write notes on:

(8 x 5 = 40)

1. Describe in detail about Biomedical Waste and its management.
2. Elaborate on Polymerase Chain Reaction.
3. Explain about Enterotoxigenic *E.coli* (ETEC) in detail.
4. Discuss about the laboratory diagnosis of *Vibrio cholerae*.
5. List out DNA viruses. Add a note on Herpes Virus.
6. Explain about Laboratory diagnosis and prophylaxis of Polio virus.
7. Elaborate on Germ Tube Test.
8. Explain about Opportunistic Systemic Mycoses.

III. Short answers on:

(10 x 3 = 30)

1. Lactophenol Cotton Blue method.
2. Tube coagulase test.
3. Methods of collection of Air sampling.
4. Dengue virus.
5. SARS.
6. Selenite F broth.
7. Dimorphic fungi with examples.
8. Bacteremia and Septicemia.
9. Catalase test.
10. Kirby-Bauer Disc Diffusion method.

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

[AHS 1123]

NOVEMBER 2023

Sub. Code: 5033

B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011 & 2018-2019 onwards)
PAPER III – MICROBIOLOGY – II
Q.P. Code: 725033

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Discuss about morphology, culture characteristics and laboratory diagnosis of Mycobacterium tuberculosis.
2. Discuss the morphology, antigenic classification and laboratory diagnosis of Orthomyxovirus.
3. Enumerate the agents causing Systemic Mycosis. Discuss the morphology and Lab diagnosis of Cryptococcosis.

II. Write notes on:

(8 x 5 = 40)

1. Widal test.
2. Virulence of Pneumococci.
3. Mycetoma.
4. Laboratory diagnosis of Syphilis.
5. Tissue culture.
6. Viral meningitis.
7. Laboratory diagnosis of HIV.
8. Mycotic poisoning.

III. Short answers on:

(10 x 3 = 30)

1. Name three dimorphic fungi.
2. Nosocomial infections.
3. Kirby Bauer disk diffusion method.
4. CAMP test.
5. Septicemia.
6. Inclusion bodies.
7. Name the transport media for Vibrio cholera.
8. Reynolds Braude phenomenon.
9. Types of polio vaccine. Advantages of oral polio vaccine.
10. Define Otomycosis. Name three agents causing otomycosis.

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

[AHS 0424]

APRIL 2024

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011 & 2018-2019 onwards)
PAPER III – MICROBIOLOGY – II
Q.P. Code: 725033**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. List the agents causing bacterial meningitis. Write about morphology, culture characteristics and laboratory diagnosis of Streptococcus pneumonia.
2. Classify Herpes virus. Discuss the morphology, laboratory diagnosis of Herpes Simplex virus.
3. Write about agents causing opportunistic mycosis. Elaborate on candidiasis.

II. Write notes on: (8 x 5 = 40)

1. Mucormycosis.
2. Opportunistic infections in AIDS patients.
3. Lab diagnosis of viral infections.
4. Personal Protective Equipment.
5. Bacteriophage.
6. Gas gangrene.
7. Post exposure prophylaxis of Rabies.
8. Chlamydia.

III. Short answers on: (10 x 3 = 30)

1. Cytopathic effect.
2. Classify fungal infections.
3. Dot blot assay.
4. VDRL.
5. Antigenic shift.
6. What is “id” reaction?
7. Super carriers.
8. Glandular fever.
9. HEPA Filter.
10. Name two RNA viruses.

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

[AHS 0125]

JANUARY 2025

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011 & 2018-2019 onwards)
PAPER III – MICROBIOLOGY – II
Q.P. Code: 725033**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Write in detail about the sample collection and laboratory diagnosis of fungal infections.
2. Describe the pathogenesis and laboratory diagnosis of Rabies. Write a note on Post exposure prophylaxis.
3. Explain the morphology, pathogenesis, laboratory diagnosis and treatment of Staphylococcus aureus.

II. Write notes on: (8 x 5 = 40)

1. Laboratory Diagnosis of Gas Gangrene.
2. Pathogenesis of Syphilis.
3. Anaerobic cultivation method.
4. H1N1 virus.
5. Pathogenesis of Viral diarrhea.
6. Tissue culture method.
7. Cryptococcosis.
8. Dermatophytes.

III. Short answers on: (10 x 3 = 30)

1. Transport media with examples.
2. CAMP test.
3. BCG vaccine.
4. Name three sexually transmitted disease caused by Bacteria.
5. Disinfection and antisepsis.
6. Draw and label the structure of Hepatitis B virus.
7. Western blotting technique.
8. What are Arboviruses? Give examples.
9. Ringworm infection.
10. Oral thrush.

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

[AHS 0425]

APRIL 2025

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011 & 2018-2019 onwards)
PAPER III – MICROBIOLOGY – II
Q.P. Code: 725033**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Describe in detail about the morphology, culture characteristics, pathogenesis of Bacteria causing Enteric fever. Add a note on its laboratory diagnosis.
2. Enumerate the methods of Cultivation of Viruses. Describe in detail about Embryonated egg inoculation with diagram.
3. Elaborate on the pathogenesis and laboratory diagnosis of fungi causing candidiasis.

II. Write notes on: (8 x 5 = 40)

1. Broad-spectrum antibiotics and Antimicrobial resistance.
2. Anaerobic culture methods.
3. Toxins produced by Staphylococcus aureus.
4. Laboratory diagnosis of Neisseria meningitidis.
5. ELISA.
6. Pathogenesis of Rabies.
7. Mode of action of Antifungal agents.
8. Lowenstein Jensen Medium.

III. Short answers on: (10 x 3 = 30)

1. Antigenic structure of Streptococcus pyogenes.
2. Nagler's reaction.
3. Shigellosis.
4. VDRL test.
5. Yellow fever.
6. Mycetoma.
7. Indole test.
8. Brownian movement.
9. Negri bodies.
10. Cryopreservation.

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

[AHS 1125]

NOVEMBER 2025

Sub. Code: 5033

**B.Sc. MEDICAL LABORATORY TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011 & 2018-2019 onwards)
PAPER III – MICROBIOLOGY – II
Q.P. Code: 725033**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. What is Pneumonia? Write briefly about pathogenesis and Laboratory diagnosis of *Klebsiella pneumoniae*.
2. Write the types of fungal infection and explain briefly systemic Infection with example.
3. Write general properties of virus and laboratory diagnosis of viral Infection.

II. Write notes on: (8 x 5 = 40)

1. Write notes on Antibiotic susceptibility Test.
2. Mycetoma.
3. Write notes on Hepatitis B virus.
4. Polymerase Chain Reaction.
5. Laboratory diagnosis of *Vibrio cholerae*.
6. Write notes on Bacterial meningitis.
7. Acid fast staining.
8. Write notes on post exposure prophylaxis of Rabies.

III. Short answers on: (10 x 3 = 30)

1. What is Dimorphic fungi?
2. What is Negri body?
3. How will you cultivate viruses?
4. Name three organisms causing food poisoning.
5. Weil - Felix Test.
6. What is Zoonotic infection? Give two examples.
7. BCG Vaccine.
8. Metachromatic granules - Explain.
9. Name three selective medium and their uses.
10. PPD.
