

# PARAMEDICAL BOARD, BANGALORE

ANNUAL EXAMINATION AUGUST - 2018

Medical Laboratory Technology

Time: 3.00 HRS

Max Marks:100

## GENERAL INSTRUCTIONS:

- The question paper has two parts A and B. Both the parts are compulsory.
- Write neat diagrams wherever necessary, Handwriting should be legible.

**Subject: Microbiology**

**Q P CODE: 5107**

### I. Short notes, answer any FOUR questions.

4 X 5 = 20 marks

- Anaerobic culture methods.
- Gaseous disinfectants.
- Fimbriae(Pili).
- Enumerate different staining techniques; write about Gram's staining method.
- Autoclave.

### II. Short answers

10 X 3 = 30 marks

- Mention three contributions of Louis Pasteur.
- Koch's Postulates.
- Acid fast stain.
- Mention three examples of motile bacteria.
- Negative staining method.
- Mention three instruments sterilized by Hot air Oven.
- Cold sterilization.
- Mention three examples of liquid media.
- Enrichment media.
- Mention three inoculation methods on solid media.

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(College Code - 342)  
Mysore Road, Malavalli - 571430, Mandya Dist.

**Subject: Microbiology**

**Q P CODE: 5108**

### I. Short notes, answer any FOUR questions.

4 X 5 = 20 marks

- Active immunity
- Write the principle, types and uses of ELISA Test
- Type I hypersensitivity
- Preparation of Gram's stain
- Agglutination reaction

### II. Short answers

10 X 3 = 30 marks

- Draw a neat labelled diagram of IgM
- Classify immunity
- Haptens
- Name 3 methods of biomedical waste treatment
- Name 3 Gram positive bacteria
- Heterophile agglutination test
- Define and enumerate different types of antibody
- Mention the methods of sterilisation of: Inoculation loop and test tubes
- Give examples of 3 buffers used in microbiology laboratory and mention one use of each
- Pasteurisation

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**SUPPLEMENTARY EXAMINATION, FEBRUARY 2019**  
**II YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY**  
**TIME 3 HRS (RS-II SCHEME) MAX.MARKS.100**  
**QP CODE: 5107, SECTION-A, MICROBIOLOGY**  
**(WRITE IN A SEPARATE ANSWER BOOKLET)**

- I. Write Short notes (any FOUR) 5x4=20**
1. Koch's postulates
  2. Fluorescent microscopy
  3. Hot air oven
  4. Enriched media
  5. Coagulase test
- II. Write short answers 10x3=30**
6. Capsule
  7. Sterilization controls
  8. Pasteurization
  9. Name three motile bacteria
  10. Name three spore bearers
  11. Name three anaerobic culture media
  12. Lawn culture
  13. Name three citrate positive bacteria
  14. Name any three Gram negative bacteria
  15. Cold sterilization

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**QP CODE: 5108, SECTION-B, MICROBIOLOGY**  
**(WRITE IN A SEPARATE ANSWER BOOKLET)**

- I. Write Short notes (any FOUR) 5x4=20**
1. Passive immunity
  2. Antigen
  3. Type 4 hypersensitivity reaction
  4. Preparation of ZN stain
  5. ELISA
- II. Write short answers 10x3=30**
6. Name any three Gram positive bacteria
  7. Name three hospital acquired infections
  8. Name three antibodies
  9. List the route of infection
  10. List the ingredients of Gram stain
  11. Name 3 secondary stains
  12. Give an example for simple, differential and special stains
  13. Define antibody, buffers and stain
  14. Name three agglutination tests.
  15. Draw a neat labeled diagram of IgG

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**PARAMEDICAL BOARD, BENGALURU**  
**ANNUAL EXAMINATION, AUGUST 2019**  
**II YEAR DIPLOMA IN**  
**MEDICAL LABORATORY TECHNOLOGY (DMLT)**  
**TIME: 3 HRS (RS -2 SCHEME) MAX. MARKS: 100**  
**QP CODE: 5107, MICROBIOLOGY**

**I. SHORT NOTES- ANSWER ANY EIGHT**

**8 X 5 = 40**

1. Write the contributions of Louis Pasteur
2. Bacterial growth curve
3. Define and classify sterilization
4. Selective Media
5. Citrate utilization test – Principles and uses
6. Innate Immunity
7. IgA Antibody
8. Type I hypersensitivity reactions
9. ZN Stain – Procedure & Uses
10. Define Agglutination with examples

**II. SHORT ANSWERS**

**20 X 3 = 60**

11. Bacterial Spore [ Draw & Label]
12. Types of radiation & their uses
13. Tests for disinfectants
14. Name three gram negative bacilli
15. Name three Motile organisms
16. Name three Transport Media
17. Name three Anaerobic Culture Media
18. Name three Gram positive bacteria
19. Composition of Albert Stain
20. Gaseous Sterilization
21. Give three differences between gram negative and gram positive bacterial cell wall
22. Name three hospital acquired infections
23. Name three antibodies
24. Name three Zoonotic Infections
25. Negative Staining
26. How do you fix the smear and what are the advantages of Fixation?
27. List two differential Stains and Organisms for which are used.
28. Define immunity and classify Immunity
29. Name any three antigen antibody reactions
30. Draw a neat and labelled diagram of IgM

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KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION (REGULATION) AUTHORITY  
PARAMEDICAL BOARD, BENGALURU  
ANNUAL EXAMINATION, NOVEMBER 2020  
II YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY  
(DMLT)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5107, MICROBIOLOGY (WRITE IN GREEN ANSWER BOOK)

SHORT NOTES: ANSWER ANY EIGHT

8x5=40

- 1 Louis Pasteur
- 2 Write a labelled diagram of bacterial cell
- 3 Transport media
- 4 Passive immunity
- 5 Modes of transmission of infection
- 6 Gram's stain
- 7 Fumigation of operation theatre
- 8 Immunoglobulin G (IgG)
- 9 Bacterial growth curve
- 10 Sterilisation by dry heat

SHORT ANSWERS

20 x3=60

- 11 Pasteurisation
- 12 IgE antibody
- 13 Define antigen & write its two properties
- 14 Gram positive bacterial cell wall
- 15 Dark ground microscope
- 16 Name three gram positive bacteria
- 17 Gaseous disinfectants
- 18 Write three aerobic bacteria
- 19 Write three uses of compound microscope
- 20 Bacterial spore
- 21 Write three uses of ELISA
- 22 Bacterial filters
- 23 Bacterial capsule
- 24 Write three differences between active & passive immunity
- 25 Name three live vaccines
- 26 Write three sources of infection
- 27 Name three selective media
- 28 Name three articles sterilised in hot air oven
- 29 Name three agglutination tests
- 30 What is a buffer? Give two examples

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PARAMEDICAL BOARD, BENGALURU  
SUPPLEMENTARY EXAMINATION, JANUARY 2020  
II YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY (DMLT)  
QP CODE: 5107, MICROBIOLOGY (RS -2 SCHEME)  
(ANSWER IN GREEN BOOK)

TIME: 3 HRS

MAX. MARKS: 100

I. SHORT NOTES- ANSWER ANY EIGHT

8 X 5 = 40

1. Contributions of Louis Pasteur
2. Use and care of compound microscope
3. Write in brief about structure of a bacterial cell
4. Hot air oven
5. Indole test
6. IgM
7. Innate immunity
8. ELISA
9. Biomedical waste segregation and disposal
10. Type 4 hypersensitivity reaction

II. SHORT ANSWERS

20X3=60

11. Name different types of microscopes
12. Write neat labelled diagram of a bacterial spore
13. Enriched media
14. Phases of bacterial growth curve
15. Uses of dark ground microscope
16. Patterns of arrangement of bacterial flagella
17. Name three viral vaccines
18. Cold sterilization
19. Sterilization controls
20. Name three Gram positive cocci
21. Name three ingredients of Nutrient agar
22. Robertson cooked meat medium
23. Define Precipitation and Agglutination reactions
24. Name personal protective equipment used in the microbiology laboratory
25. Koch's postulates
26. Functions of bacterial capsule
27. Define Sterilization and Disinfection
28. Name three common chemical disinfectants used in the hospital
29. Cleaning of Blood/ Body fluid spill in the laboratory
30. Name common staining techniques used in microbiology

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PARAMEDICAL BOARD, BENGALURU  
SUPPLEMENTARY EXAMINATION, JULY 2021  
II YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY  
(DMLT)

TIME: 3 Hrs (RS -2 SCHEME) MAX. MARKS: 100

QP CODE: 5107, MICROBIOLOGY (WRITE IN GREEN ANSWER BOOK)

SHORT NOTES: ANSWER ANY EIGHT 8x5=40

- 1 Classify and describe hypersensitivity reaction
- 2 Define sterilization. Write in detail about chemical sterilization
- 3 Write in brief about structure of bacterial cell
- 4 Modes of transmission of infection
- 5 Uses and care of compound microscope
- 6 Define selective media with three examples
- 7 Reagents used in gram staining techniques
- 8 Contribution of Louis Pasteur
- 9 Innate immunity
- 10 Bacterial growth curve

SHORT ANSWERS

20 x3=60

- 11 Structure of antibody
- 12 Write a neat labelled diagram of bacterial spore
- 13 Cold sterilization
- 14 Name three gram negative cocci
- 15 Cleaning of body fluid spill in laboratory
- 16 Enriched media
- 17 Define precipitation with example
- 18 Preparation of safranin stain
- 19 Functions of bacterial capsule
- 20 Name gaseous disinfectants
- 21 Fumigation
- 22 Bacterial loop
- 23 Different types of infection
- 24 Write three different between active and passive immunity
- 25 Bacterial filters
- 26 Name three live vaccines
- 27 Name three anaerobic bacteria
- 28 Name three articles to be sterilised in hot air oven
- 29 Name three transport media
- 30 Gram positive bacterial cell wall

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ANNUAL EXAMINATION, NOVEMBER 2021  
II YEAR DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY  
(DMLT)

TIME: 3 Hrs

(RS -2 SCHEME)

MAX. MARKS: 100

QP CODE: 5107, MICROBIOLOGY (WRITE IN GREEN ANSWER BOOK)

SHORT NOTES: ANSWER ANY EIGHT

8x5=40

- 1 Contributions of Louis Pasteur
- 2 Type 4 hypersensitivity reaction
- 3 Biomedical waste segregation and disposal
- 4 ELISA
- 5 Innate immunity
- 6 IgM antibody
- 7 Indole test
- 8 Use and care of compound microscope
- 9 Hot air oven
- 10 Write in brief about structure of a bacterial cell

SHORT ANSWERS

20 x3=60

- 11 Name three RNA viruses
- 12 Name common staining techniques used in microbiology
- 13 Cleaning of Blood/ Body fluid spill in the laboratory
- 14 Name three common chemical disinfectants used in the hospital
- 15 Define sterilization and disinfection
- 16 Functions of bacterial capsule
- 17 Koch's postulates
- 18 Name personal protective equipment used in the microbiology laboratory
- 19 Write neat labelled diagram of a bacterial spore
- 20 Phases of bacterial growth curve
- 21 Enriched media
- 22 Patterns of arrangement of bacterial flagella
- 23 Uses of dark ground microscope
- 24 Bacterial filters-types and uses
- 25 COVID 19 virus
- 26 Sterilization controls
- 27 Name three Gram positive cocci
- 28 Name three ingredients of nutrient agar
- 29 Robertson cooked meat medium
- 30 Define precipitation and agglutination reactions

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