



**GOVERNMENT OF KERALA
DIRECTORATE OF MEDICAL EDUCATION
DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY
REGULAR & SUPPLEMENTARY EXAMINATIONS APRIL 2024**

DMLT- S - I –APR-2024

Max. marks : 100

Time : 3 hrs.

**PAPER- I
BIOCHEMISTRY**

(Answer Section A & B separately and draw diagrams wherever necessary)

SECTION A

- I. What is Colorimetry? Describe the parts, principle and working of a colorimeter. Write the difference between colorimeter and spectrophotometer. (1+15+4=20)
- II. Write briefly on Automation in clinical chemistry laboratory (10)
- III. Write short notes on (4x5=20)
 - a. Percentage solutions
 - b. Centrifuge
 - c. Biuret reaction
 - d. Lipoproteins

SECTION B

- IV. Discuss principles of different methods of serum total cholesterol estimation. Write one method in detail (5+15=20)
- V. Briefly describe GTT (10)
- VI. Write short notes on (4x5=20)
 - a. Ketone bodies
 - b. Liver enzymes
 - c. Clearance tests
 - d. Flame photometry



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DMLT- S - II –APR-2024

Time : 3 hrs.

Max. marks : 100

PAPER-II

MICROBIOLOGY AND PARASITOLOGY

(Answer Section A & B separately and draw diagrams wherever necessary)

SECTION A

- I. Enumerate bacteria causing Meningitis. Describe in detail the laboratory diagnosis of Pyogenic meningitis. (2+16=18)

- II. Describe briefly (2x6=12)
 - a. Laboratory diagnosis of Pulmonary tuberculosis
 - b. Bacteriological examination of water.

- III. Write short notes on (4x5=20)
 - a. Nagler reaction
 - b. Autoclave
 - c. Robertson's cooked meat medium
 - d. Vibrio cholerae

SECTION B

- IV. Classify antigen antibody reactions. Discuss Enzyme – linked immunosorbent assay in detail. (5+10=15)

- V. Write short notes on (7X5=35)
 - a. Paul Bunnell test
 - b. Laboratory waste management
 - c. Concentration techniques for ova and cyst in stool.
 - d. Cultivation of virus
 - e. Cryptococcus neoformans
 - f. Demonstration of blood parasites
 - g. Serological diagnosis of HIV infection.

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DMLT- S - III –APR-2024

Time : 3 hrs.

Max. marks : 100

**PAPER-III
PATHOLOGY**

(Answer Section A & B separately and draw diagrams wherever necessary)

SECTION A

- I. Classify anaemia. Explain Laboratory diagnosis of iron deficiency Anaemia (3+7=10)
- II. **Write briefly on.** (4x5=20)
- a. Red cell indices
 - b. Myelopoiesis
 - c. Osmotic fragility Test
 - d. Myeloperoxidase (MPO) stain
- III. **Write short notes on** (5x4=20)
- a. Organised urine sediment
 - b. CSF cell count
 - c. Sickling test
 - d. Barr body
 - e. Detection of Ketone bodies in urine

SECTION B

- IV. Discuss different types of microtomes and their uses. Draw a neat labelled diagram illustrating knife angles. (7+3=10)
- V. Write briefly on (4x5=20)
- a. Papanicolaou stain
 - b. Anticoagulant preservative solutions used in blood bank
 - c. Karyotyping
 - d. Cryoprecipitate
- VI. Write short notes on (5x4=20)
- a. Alum Haematoxylin
 - b. Trichrome staining
 - c. Cross matching
 - d. Resin embedding
 - e. Frozen sections
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