



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)

M.Sc. Medical Laboratory Technology Semester-II

November 2024 Examination

Time: 3 Hrs.

[Max. Marks: 100]

Sec-A (50 Marks)
Clinical Biochemistry
Q.P Code: M2045

Your answers should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.

LONG ESSAY

1 X 20 = 20 Marks

1. Explain Bilirubin metabolism. Classify the different types of jaundice with suitable examples. What are the biochemical findings in the different types of jaundice (10+5+5).

SHORT ESSAY

3X 10 = 30 Marks

1. List the various constituents present in normal urine. Explain the principle and clinical significance of the various qualitative tests used for identification of inorganic constituents
2. Explain the mechanism of HCl secretion. How is secretion of gastric juice regulated
3. Describe the type of specimen to be collected, the methods of analysis, biological reference range and clinical correlation of Chloride and Calcium.

Sec-B (50 Marks)
Biomedical Techniques & Laboratory management
Q.P Code: M2046
(Use separate answer booklet for section-B)

LONG ESSAY

1 X 20 = 20 Marks

1. Explain in detail the various techniques of protein purification

SHORT ESSAY

3X 10 = 30 Marks

1. Give the principle, instrumentation and application of Atomic absorption spectrophotometry
2. Briefly explain the methods of cell fractionation.
3. Explain the common uses of computers in hospitals.

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M.Sc. Medical Laboratory Technology First Year (Semester-II)

November 2024 Examination

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[Max. Marks: 100]

50 Marks

Sec-A

Clinical Microbiology

Q.P Code: M2055

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

1 X 20 = 20 Marks

1. Enumerate mosquito borne diseases. Discuss in detail the life cycle, pathogenesis and laboratory diagnosis of Plasmodium falciparum. Add a note on complications of Malaria.

SHORT ESSAY

3X 10 = 30 Marks

2. Describe the Seromarkers of Hepatitis B infection
3. Describe the pathogenesis, clinical features, laboratory diagnosis and complications of Dengue.
4. Describe the pathogenesis, clinical manifestation, and laboratory diagnosis of Cryptococcosis.

Sec-B

50 Marks

Subject: Molecular Biology

Q.P Code: M2056

LONG ESSAY

1 X 20 = 20 Marks

1. Describe the use of banding technique, FISH, and PCR to study the alteration in DNA and chromosomes.

SHORT ESSAY

3X 10 = 30 Marks

2. Describe the applications of rDNA technology in medicine.
3. Define mutation and describe various types of mutations.
4. Define gene therapy and explain the role of gene therapy in curing genetic diseases.

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November 2024 Examination

Time: 3 Hrs.

[Max. Marks: 100]

Sec-A

50 Marks

Hematology

Q.P Code: M2065

(Use separate answer booklet for section A & B)

Your answers should be specific to the questions asked.

Draw neat labelled diagrams wherever necessary.

LONG ESSAY

1 X 20 = 20 Marks

1. Describe the laboratory approach in a case of hemorrhagic disorders? Define and describe etiopathogenesis, clinical features and laboratory investigations in Disseminated Intravascular Coagulation

SHORT ESSAY

3X 10 = 30 Marks

- 2 Quality Control in Hematology Laboratory
- 3 Describe etiopathogenesis, clinical features and laboratory investigations in a case of Anti-phospholipid Syndrome.
- 4 Describe the various tests for platelet functions

Sec-B

50 Marks

Clinical pathology and medical genetics

Q.P Code: M2066

(Use separate answer booklet for Section-B)

LONG ESSAY

1 X 20 = 20 Marks

1. Describe the methods of chromosome analysis and molecular cytogenetics to identify chromosome abnormalities. Write a note on gene therapy.

SHORT ESSAY

3X 10 = 30 Marks

2. Describe the indications, contraindications and tests for cerebrospinal fluid analysis
3. List 03 autosomal recessive diseases and Describe the etiopathogenesis and clinical features of any one.
4. Describe the inborn errors of metabolism highlighting lysosomal storage disorders

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