SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)
M.Sc. Medical Laboratory Technology (MLT) (Semester - I)
January – 2016 Examinations

Time: 3 Hrs. [Max. Marks: 100]

Paper – I
Clinical Biochemistry, Biomedical Techniques & Laboratory Management-I

Your answer should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.
(Use separate answer booklet for section A & B)

Section – A
Clinical Biochemistry (50 Marks)
Q.P. Code: MMLT - 105

LONG ESSAY **1 X 20 = 20 Marks**

1. Explain various levels of structures of proteins and the forces responsible for their maintenance.

SHORT ESSAY **5X 6= 30 Marks**

2. Classify proteins based on functions with examples.
3. What are iso-enzymes? Briefly explain the various iso enzyme forms and clinical significance of Lactate dehydrogenase.
4. What are phospholipids? Name three of them and their biological functions.
5. Clinical significance of creatinine clearance test.
6. What are heteropolysaccharides? Name three of them, give their composition and their biological importance.

Section – B (50 Marks)
Biomedical Techniques & Laboratory Management
Q.P. Code: MMLT - 106

(Use separate answer booklet for section B)

LONG ESSAY **1 X 20 = 20 Marks**

1. What is chromatography? Explain ion exchange chromatographic techniques.

SHORT ESSAY **5X 6= 30 Marks**

2. Explain the principle and experimental procedure of polyacrylamide gel electrophoresis.
3. Explain the uses of radioactive isotopes with special emphasis on I^{131} .
4. Ion selective electrodes.
5. Ultracentrifugation and its uses.
6. Briefly explain external quality assurance in laboratory practice.

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Paper – II
Clinical Microbiology and Immunology-I

Your answer should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary
(Use separate answer booklet for section A & B)

Section – A
Clinical Microbiology (50 Marks)
Q.P. Code: MMLT - 109

LONG ESSAY **1 X 20 = 20 Marks**

1 Define and classify culture media. Write briefly a note on enrichment media.

SHORT ESSAY **5X 6= 30 Marks**

2 Mclntosh-Fildes' jar.

3 Zoonotic infections.

4 Louis Pasteur.

5 Bacteriological examination of drinking water.

6 Pathogenesis of cholera.

Section – B
Immunology (50 Marks)
Q.P. Code: MMLT - 110

(Use separate answer booklet for section A & B)

LONG ESSAY **1 X 20 = 20 Marks**

1 Mention the cells involved in immune response. Describe the development, identification and function of different types of lymphocytes.

SHORT ESSAY **5X 6= 30 Marks**

2 Mention different types of immunoglobulins and their functions.

3 Weil-Felix test.

4 ELISA.

5 Human leucocyte A complex.

6 Complement deficiency diseases.

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Time: 3 Hrs. [Max. Marks: 100]

Paper – III
Haematology, Clinical Pathology & Immunopathology-I

Your answer should be specific to the questions asked.
Draw neat labelled diagrams wherever necessary.
(Use separate answer booklet for section A & B)

Section – A
Haematology (50 Marks)
Q.P. Code: MMLT - 107

LONG ESSAY **1 X 20 = 20 Marks**

1. Describe chemical examination of urine. Add a note on urine microscopy.

SHORT ESSAY **5X 6= 30 Marks**

2. Discuss approach to a case of macrocytic anaemia.
3. Chronic lymphoid leukemia (CLL).
4. Aplastic anaemia.
5. List the differences between leukemia and leukemoid reaction. Add a note on Philadelphia chromosome.
6. Haemoparasites.

Section – B (50 Marks)
Clinical Pathology and Immunopathology
Q.P. Code: MMLT - 108

(Use separate answer booklet for section B)

LONG ESSAY **1 X 20 = 20 Marks**

1. Describe in detail haemolytic disease of newborn (HDN). Discuss lab investigations in a case of HDN.

SHORT ESSAY **5X 6= 30 Marks**

2. Describe immune complex reaction with suitable examples.
3. Pathogenesis of autoimmunity.
4. Organs of immune system.
5. Immunology of AIDS.
6. Delayed hypersensitivity reaction.

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