SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH
(A DEEMED TO BE UNIVERSITY)
M.Sc. Medical Laboratory Technology (Semester-IV)
Examination November 2025

[Max. Marks: 100]

Time: 3 Hrs.

Hematology

Q.P Code: M4090

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

LONG ESSAY **2 X 20 = 40 Marks**

1. Define and classify thrombotic disorder. Describe the pathogenesis and laboratory diagnosis of thrombotic disorder (5+5+5+5)
2. Enumerate the quantitative platelet disorders. Describe the pathogenesis and Laboratory diagnosis of Immune Thrombocytopenic purpura (5+5+10)

SHORT ESSAY **6X 10 = 60 Marks**

3. Describe the principle , procedure and indication of estimation of Prothrombin time (PT)
4. Describe the indications and processing of bone marrow biopsy.
5. Discuss the Organization and Quality control in the laboratory
6. Describe the pathogenesis and laboratory findings of hemolytic uremic syndrome
7. Describe qualitative platelet disorders.
8. Enumerate platelet indices. Discuss their role in platelet disorders.

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M.Sc. Medical Laboratory Technology (Semester-IV) Examination

[Max. Marks: 100]

Time: 3 Hrs.

Blood Transfusion

Q.P Code: M4100

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

LONG ESSAY **2 X 20 = 40 Marks**

1. Discuss in detail about the setting of blood bank as per the National standards for Blood Centers
2. Discuss the methods of compatibility testing in blood center. Describe the pathogenesis of autoimmune hemolytic anaemia. Describe the steps to choose suitable blood for such patients (8+4+8)

SHORT ESSAY **6X 10 = 60 Marks**

3. Discuss in detail about the counseling of blood donor about transfusion transmitted infections. Describe about the steps followed in your blood centre once the blood donor is positive for transfusion transmitted infections. (4+6)
4. Discuss Quality Control in components preparation.
5. Discuss graft versus host disease after transfusion blood and blood products
6. Discuss the indications, method of cord blood banking
7. Discuss quality assurance of donor processing in blood bank.
8. Describe glass ware cleaning in blood centre

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

Paper I - SYSTEMIC BACTERIOLOGY, APPLIED MICROBIOLOGY AND IMMUNOLOGY

Q.P Code : M4451

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

LONG ESSAY **2 X 20 = 40 Marks**

1. Define and classify Hypersensitivity. Describe in detail Type 1 hypersensitivity reaction. Add a note on its management.
2. Enumerate the agents causing Diarrhea. Describe the pathogenesis and laboratory diagnosis of Cholera.

SHORT ESSAY **6 X 10 = 60 Marks**

3. Describe the principle of Immunofluorescence. Explain the different types of immunofluorescence, with examples.
4. What are monoclonal antibodies? Explain the process of production of Monoclonal antibodies. Add a note on its application.
5. Enumerate the agents causing Infective endocarditis. Describe the laboratory diagnosis of Infective endocarditis.
6. Describe the pathogenesis and laboratory diagnosis of Tetanus. Add a note on its prevention.
7. Name the cells involved in Humoral Immunity. Describe the role of Humoral immunity in primary and secondary Immune response.
8. Enumerate the agents causing sexually transmitted diseases. Describe the laboratory diagnosis of Syphilis.

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M.Sc. Medical Laboratory Technology (Semester-IV) Examination

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

Paper II – Virology & Parasitology

Q.P Code: M4452

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

LONG ESSAY **2 X 20 = 40 Marks**

1. Describe the history, clinical features, and epidemiology and laboratory diagnosis of Influenza.

2. Discuss the lifecycle, pathogenesis, and laboratory diagnosis of Hydatid cyst.

SHORT ESSAY 6X10=60 Marks

3. Draw a neat labelled diagram of Bacteriophage. Discuss the lytic and lysogenic cycle of bacteriophage.
4. Discuss the pathogenesis and laboratory diagnosis of Human papilloma virus infection. Add a note on its immunoprophylaxis.
5. Discuss the morphology, clinical features and laboratory diagnosis of Covid-19 infection. Add a note on its imunoprophylaxis.
6. Discuss the life cycle and laboratory diagnosis of Trichinella spiralis infection.
7. Discuss the life cycle and laboratory diagnosis of Amoebic dysentery
8. Discuss the life cycle and laboratory diagnosis of Paragonimus westermanii infection.