

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[DM 0823]**

**AUGUST 2023**

**Sub. Code :1351**

**D.M. - CLINICAL IMMUNOLOGY AND RHEUMATOLOGY**

**PAPER I – BASIC SCIENCES AND DIAGNOSTIC PROCEDURES  
IN RHEUMATOLOGY AND CLINICAL IMMUNOLOGY**

*Q.P. Code: 161351*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 15 = 30)**

1. Discuss the mechanisms of immune regulation by neuronal pathways. Elaborate on the various neuro-modulatory therapeutic options for the treatment of autoimmune rheumatic diseases.
2. Discuss the principles, strengths and weakness of various imaging modalities in the management of Gout.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Propensity matching.
2. Nail fold capillaroscopy in systemic sclerosis and myositis.
3. Single cell RNA sequencing in delineating lupus pathophysiology.
4. Metabolomics and its role in understanding autoimmune rheumatic diseases.
5. Discuss the principle, interpretation, advantages and disadvantages of indirect immunofluorescence for detecting anti nuclear antibodies.
6. Discuss the proposed mechanisms of flare in rheumatoid arthritis.
7. Role of IL-17/IL-23 axis in spondyloarthritis.
8. Interpretation of synovial fluid findings and the diagnostic utility of doing synovial aspiration in patients with musculoskeletal Rheumatic diseases.
9. Pathophysiology of CPPD.
10. Immune synapse.

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