

Paper II: Technical Subject

Section (A) - 45 Marks

1. **Basic sciences relevant to Rheumatology:**
 - 1.1 Anatomy & surface anatomy of the musculoskeletal system including joints, bones, muscles & soft tissues in health & disease
 - 1.2 Physiology and biochemistry of the musculoskeletal system including joints, bones, muscles and soft tissues
 - 1.3 Innate and adaptive immune systems, including cellular and humoral immunity
 - 1.4 Concept of autoimmune diseases in the light of the normal functions of the immune system
 - 1.5 Pharmacology of drugs used in rheumatologic practice, including analgesics, non-steroidal anti-inflammatory drugs, disease modifying anti-rheumatic drugs, immunosuppressive agents, biologic agents, drugs used in treating patients with metabolic bone diseases, non-analgesic drugs used in the management of patients with chronic pain, drugs used in the management of gout, corticosteroids etc.
2. **Musculoskeletal pain problems and soft tissue rheumatisms:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 2.1 Neck pain
 - 2.2 Spinal pain
 - 2.3 Intervertebral disc disorders
 - 2.4 Spinal canal or foraminal stenosis & related syndromes
 - 2.5 Limb pain syndromes: Rotator cuff disease, Enthesopathies including epicondylitis, plantar fasciitis, Non-specific limb pain, etc
3. **Osteoarthritis and related conditions:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 3.1 Osteoarthritis of large joints
 - 3.2 Generalized Nodal osteoarthritis
 - 3.3 Diffuse idiopathic skeletal hyperostosis
 - 3.4 Neuropathic arthritis
4. **Crystal associated arthropathies:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 4.1 Gout
 - 4.2 Pseudogout
 - 4.3 Apatite deposition disease
 - 4.4 Oxalate metabolism disorders
5. **Rheumatoid arthritis:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management
6. **Spondyloarthritides:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 6.1 Ankylosing spondylitis
 - 6.2 Psoriatic arthritis
 - 6.3 Enteropathic arthropathies
 - 6.4 Reactive arthritis

6.5 Whipple's disease

7. **Autoimmune connective tissue diseases:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 7.1 Systemic lupus erythematosus
 - 7.2 UCTD, MCTD
 - 7.3 Antiphospholipid syndrome
 - 7.4 Systemic sclerosis
 - 7.5 Sjogren's syndrome
 - 7.6 Inflammatory muscle disease
 - 7.7 Overlap syndromes
 - 7.8 Relapsing polychondritis
8. **Vasculitides:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 8.1 Giant cell arteritis (and polymyalgia rheumatica)
 - 8.2 Granulomatosis with polyangiitis (Wegener's granulomatosis)
 - 8.3 Polyarteritis nodosa and Microscopic polyangiitis
 - 8.4 Eosinophilic Granulomatosis with Polyangiitis (Churg Strauss syndrome)
 - 8.5 Behcet's disease
 - 8.6 Takayasu's arteritis
 - 8.7 Cutaneous vasculitis
 - 8.8 Panniculitis
 - 8.9 IgA vasculitis (Henoch Schonlein purpura)
 - 8.10 Cryoglobulinaemia

Section (B) - 55 Marks

9. **Rheumatic fever:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management
10. **Juvenile Idiopathic Arthritis:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of various forms of juvenile arthritis
11. **Bone disorders:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 11.1 Osteoporosis
 - 11.2 Rickets and osteomalacia
 - 11.3 Bone & joint dysplasias
 - 11.4 Renal bone disease
 - 11.5 Regional disorders
12. **Metabolic, endocrine and other disorders:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
 - 12.1 Endocrine disorders affecting bone, joint or muscle (e.g., thyroid, pituitary, parathyroid disorders)
 - 12.2 Metabolic disorders affecting joints (e.g., alkaptonuria, haemochromatosis)
 - 12.3 Heritable collagen disorders
 - 12.4 Haemoglobinopathies as they relate to the musculoskeletal system

- 12.5 Haemophilia and other disorders of haemostasis as they relate to the musculoskeletal system
13. **Infection and arthritis:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
- 13.1 Septic arthritis
 - 13.2 Osteomyelitis
 - 13.3 Post-infectious rheumatic conditions, including post-infectious arthritis
 - 13.4 Lyme disease
 - 13.5 Mycobacterial, fungal & parasitic arthropathies
 - 13.6 Viral arthritis
 - 13.7 Human Immunodeficiency virus and Acquired immunodeficiency syndrome
 - 13.8 Hepatitis B & C
14. **Neoplastic disease:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
- 14.1 Paraneoplastic musculoskeletal syndromes
 - 14.2 Primary and secondary neoplastic conditions of connective tissue
 - 14.3 Tumours of bone
 - 14.4 Pigmented villonodular synovitis
15. **Miscellaneous disorders:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:
- 15.1 Sarcoidosis
 - 15.2 Eosinophilic fasciitis
 - 15.3 Familial Mediterranean fever
 - 15.4 Hypogammaglobulinaemia & arthritis
 - 15.5 Amyloidosis
 - 15.6 Sweets syndrome (neutrophilic dermatoses)
16. **Rheumatological disorders in the elderly:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of rheumatological disorders in the elderly
17. **Paediatric and Adolescent Rheumatology:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of rheumatic and musculoskeletal diseases with onset during childhood and adolescence
18. **Investigations used in Rheumatological practice**
- 18.1 Haematological tests
 - 18.2 Biochemical tests
 - 18.3 Immunological tests
 - 18.4 Synovial fluid analysis
 - 18.5 Microbiology/Serology
 - 18.6 Pathology
 - 18.7 Imaging
 - 18.8 Neurophysiology
19. **Orthopaedic surgery in the context of rheumatological practice**