

प्राज्ञिक सेवा, इन्टर्नल मेडिसिन समूह, **Rheumatology** उपसमूह सहायक प्राध्यापक पद नौ ख (९ ख) तहको खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

Paper II: Technical Subject

पाठ्यक्रम लागू मिति :- २०७६/०७/२४

**1. Basic sciences relevant to Rheumatology:**

- Anatomy & surface anatomy of the musculoskeletal system including joints, bones, muscles & soft tissues in health & disease
- Physiology and biochemistry of the musculoskeletal system, including joints, bones, muscles and soft tissues
- Innate and adaptive immune systems, including cellular and humoral immunity
- Concept of autoimmune diseases in the light of the normal functions of the immune system
- 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.

**17. Musculoskeletal pain problems and soft tissue rheumatisms:**

Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- Neck pain
- Spinal pain
- Intervertebral disc disorders
- Spinal canal or foraminal stenosis & related syndromes
- 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:

- Osteoarthritis of large joints
- Generalized Nodal osteoarthritis
- Diffuse idiopathic skeletal hyperostosis
- Neuropathic arthritis

**4. Crystal associated arthropathies:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- Gout
- Pseudogout
- Apatite deposition disease
- Oxalate metabolism disorders:

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**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:

- Ankylosing spondylitis
- Psoriatic arthritis
- Enteropathic arthropathies
- Reactive arthritis
- Whipple's disease

**7. Rheumatic fever:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management

**8. Juvenile Idiopathic Arthritis:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of various forms of juvenile arthritis

**9. Autoimmune connective tissue diseases:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- Systemic lupus erythematosus
- UCTD, MCTD
- Antiphospholipid syndrome
- Systemic sclerosis
- Sjogren's syndrome
- Inflammatory muscle disease
- Overlap syndromes
- Relapsing polychondritis

**10. Vasculitides:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- o Giant cell arteritis (and polymyalgia rheumatic)
- o Granulomatosis with polyangiitis (Wegener's granulomatosis)
- o Polyarteritis nodosa and Microscopic polyangiitis
- 17.** Eosinophilic Granulomatosis with Polyangiitis (Churg Strauss syndrome)
  - o Behcet's disease
  - o Takayasu's arteritis
  - o Cutaneous vasculitis
  - o Panniculitis
  - o IgA vasculitis (Henoch Schonlein purpura)

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o Cryoglobulinaemia

**11. Bone disorders:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- Osteoporosis
- Rickets and osteomalacia
- Bone & joint dysplasias
- Renal bone disease
- Regional disorders:

**12. Metabolic, endocrine and other disorders:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- Endocrine disorders affecting bone, joint or muscle (e.g., thyroid, pituitary, parathyroid disorders).
- Metabolic disorders affecting joints (e.g., alkaptonuria, haemochromatosis)
- Heritable collagen disorders
- Haemoglobinopathies as they relate to the musculoskeletal system
- 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:

- Septic arthritis
- Osteomyelitis
- Post-infectious rheumatic conditions, including post-infectious arthritis
- Lyme disease
- Mycobacterial, fungal & parasitic arthropathies
- Viral arthritis
- Human Immunodeficiency virus and Acquired immunodeficiency syndrome
- Hepatitis B & C

**14. Neoplastic disease:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- Paraneoplastic musculoskeletal syndromes
- Primary and secondary neoplastic conditions of connective tissue
- Tumours of bone
- Pigmented villonodular synovitis

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**15. Miscellaneous disorders:** Epidemiology, causes, pathogenesis, pathology, clinical features, natural history, investigations and management of:

- Sarcoidosis
- Eosinophilic fasciitis
- Familial Mediterranean fever
- Hypogammaglobulinaemia & arthritis
- Amyloidosis
- 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**

- Haematological tests
- Biochemical tests
- Immunological tests
- Synovial fluid analysis
- Microbiology/Serology
- Pathology
- Imaging
- Neurophysiology

**19. Orthopaedic surgery in the context of rheumatological practice**

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