Scheme and Syllabus for M.P.T. Entrance Examination

% Weightage-Syllabus is divided into five sections that is Section A,B,C,D and E with equal weightage to each section that is 20% to each section.

SYLLABUS

Section A) Exercise Therapy & Biomechanics: Exercise Therapy- Mechanical Principle of movement, Skeletal Basis of Movement, Musculosketal Basis of Movement, Classification of Movements, Simple Machines, Goniometry, Suspension therapy, Resistance Exercise, Stretching, Hydrotherapy, Traction, Functional re-education, Proprioceptive Neuromuscular Facilitation, Relaxation and therapeutic Gymnasium, Manual Muscle Testing (M.M.T), Neuromuscular incoordination, Postures Balance and Gait, Peripheral Joint Mobilization, Hydrotherapy.
Biomechanics and kinesiology: Mechanics,joint structure and function,Muscle structure and function, Biomechanics of shoulder complex,Elbow complex, Wrist and hand complex,Hip joint,knee joint, ankle and foot complex,vertebral column,Gait and Posture.

Section B) Electrotherapy: Low frequency currents, high frequency currents, Interferential therapy E.M. Spectrum, laws of transmission, reflection, refraction, absorption, attenuation. SWD, ultrasound, U.V.R., I.F.T., I.R.R., LASER, M.W.D., Russian currents, paraffin wax bath, cryotherapy, fluidotherapy, modified direct currents, diadynamic currentsintermittent pneumatic therapy.

Section C) Physical Assessment & Manipulative Skills,Physiotherapy in Orthopaedic conditions, Physiotherapy in Sports Medicine
Physical Assessment & Manipulative Skills: General principles of human development and maturation, Electro diagnosis, Evaluation and Therapy region wise: Shoulder, Forearm-Complex, Wrist and Hand, Hip, Knee, Ankle and Foot, Assessment of cardio pulmonary dysfunction, Assessment of Hand, Basics in manual therapy and application in clinical reasoning.Motor Learning and Motor Control, Assessment of movement dysfunction-higher functions/cranial nerves/altered muscle strength/power/balance/endurance/tone, spasticity, incoordination, abnormal deep and superficial reflexes/limb-length discrepancy.
Physiotherapy in Orthopedic Conditions: Physiotherapy Management and Principal of treatment soft tissues, bone and joint problems, Traumatology, Clinical presentation,assessment and Physiotherapy management of torticolis,Thoracic inlet syndrome,CTEV,foot deformities,developmental dysplasia of hip,deformities of spine,knee,hip,ankle,shoulder,elbow,hand.OA,RA,Ankylosing spondylitis,Reiter's Disease,Tendinitis, Peri arthritis shoulder,Rotator cuff injury,Deltoid Fibrosis,Tennis elbow, golfer's elbow, recurrent slippingof ulnar nerve, pulled elbow, ganglion, DeQuervain's disease, trigger thumb and finger, carpal tunnel syndrome, Dupuytren's contracture, cervical: brachial neuralgia. Brachial plexus injury, cervical spondylitis, PIVD, coax vara, slipped upper femoral epiphysis, AVN,quadriceps fibrosis, loose bodies, anterior knee pain, chondromalacia patellae, painful heel, plantar fascitis, posterior heel pain, foot deformities, matatarsalgia,tarsal tunne3l syndrome, peripheral

nerve injuries, pre and post operative assessment and management of orthopedic surgeries.

Physiotherapy in Sports Medicine: Introduction to sports physiotherapy, Introduction to exercise testing, Introduction to body composition analysis, Basic principles of conditioning, Resistance training, Exercise Physiology, functional rehabilitation, Introduction to applied biomechanics in Tennis, running, swimming. Introduction to protective gear used in spine, upper lime and lower limb, Athlete with a disability. Mechanism, prevention, assessment, physiotherapy and medical management of common sports injuries of spine, upper limb and lower limb, Female athlete.introduction to emergency care of a sports person.,Taping and sports massage.

Section D) Physiotherapy in Neurological Conditions: Examination of neurological disorder and principal of treatment, Review of pathological & principles of management by Physiotherapy of following conditions. of Hemiplegia (includes – approaches – Bobath, Roads, etc Diseases effecting extrapyramidal system (includes Parkisonism, Wilson's disease etc, Peripheral nerve and cranial nerve lesions, Neuritus and neurologic brachial, sciatica, Myopathies,Bells palsy facial palsy,Cerebral palsy,Paraplegia (includes spinal cord injury), Common polyneuropathic conditions,(includes Guillan Berre Syndrome, Diabetic poly neuropathy, etc.), Infection – includes poliomyelitis, meningitis, encephalitis, polyneuritis, Transverse myelitis, etc.), Head injury (includes concussion, contusion, coma, etc.), Dissceminated sclerosis, amylotropic lateral sclerosis, syringomyelia, motor neuron disease (MND) , Tabes dorsalis, Cerebellar ataxia.

Section E) Physiotherapy in Medical & surgical Conditions: **Physiotherapy in Medical conditions-**Review of pathological & principles of management by Physiotherapy of following conditions-

Inflammation – actue, chronic, Common conditions of skin – Acne, Psoriasis, Alopecia, Leucoderma, Leprosy, Deficiency disease – Rickets, Diabetes, Obesity, Osteoporosis and other vitamin deficiency disorders related to physiotherapy, Breathing Exercise, Postural Drainage, Coughing and huffing techniques, Bronchitis, Asthma, Lung abcess, Bronchiectesis, Emphysema, COPD, Empyema, pneumonia, Chest wall deformities, Tumours of broinchi and lung tissue., Thrombosis, Embolism, Buerger's diseases, Arterioselerosis, Thrombophlebitis, Phlebitis, Gangrene, Congestive Cardiac failure, Hypertension, Hypotension, Aneurysm.

Physiotherapy in Surgical Conditions: Review of pathological & principles of management by Physiotherapy (pre & post) of following conditions-

Lobectomy, Pneumonectomy, Thoracotomy, Thoracoplasty, Endoscopy, corrective surgeries of congenital heart disease, angioplasty, Angioplastics open heart surgeries, heart transplant & blood vessel grafting, Common organ transplant surgeries – liver & bone marrow etc., Wound Burn & Plastic Surgery, Burns and their complications, Common reconstructive surgical proceedings of the management of wounds, ulcers, pressure sores, burns and consequent contractures and deformities, Common surgeries of the cranium and brain, Common surgeries of vertebral column and spinal cord. Common surgeries of Peripheral nerves,Surgical Inverventions in Traumatic head injuries.