

## Maharashtra State Board of Vocational Examination, Mumbai 400 051

1	Name of Course	<b>Diploma Course in Physiotherapist (For Blind) (W.E.F. 2015-16)</b>									
2	Course Code	<b>201409</b>									
3	Max.No.of Students Per Batch	25 Students									
4	Duration	2 year									
5	Type	Full Time									
6	No.Of Days / Week	6 days									
7	No.Of Hours /Days	7 Hrs									
8	Space Required	Theory Class Room – 200 sqft, Lab Sub.– 500 sqft, Lab Elective - 400 sqft <b>Total = 1100 Sq.ft.</b>									
9	Minimum Entry Qualification	S.S.C. Pass									
10	Objective Of Course	To understand basic of physiotherapist techniques, Anatomy, Psychology, Medical and surgical condition, Orthopedics, Electropathy and Exercise Therapy									
11	Employment opportunities	As Assistant Physiotherapist in : Rehabilitation Centre, Health Club, General Hospitals, Private Physiotherapy Centre, Nature Cure Clinics, Gymnasiums									
12	Teachers Qualification	For Vocational Subject -Diploma in Physiotheoraphy and For Non Vocational Subject Master Degree in concern Subject.									
13	<b>Teaching Scheme –</b>										
	Sr.	Subject	Subject Code	Clock Hours / Week		Total					
				Theory	Practical						
	1	English (Communication Skill)	90000001	2 Hrs	1 Hrs	3 Hrs					
	2	Elective – I	--	2 Hrs	1 Hrs	3 Hrs					
	3	Elective – II	--	2 Hrs	1 Hrs	3 Hrs					
	4	Pathology & Surgical	<b>20140019</b>	3 Hrs	8 Hrs	11 Hrs					
	5	Anatomy &Orthopedics	<b>20140020</b>	3 Hrs	8 Hrs	11 Hrs					
	6	Electrotherapy & Exercise therapy	<b>20140021</b>	3 Hrs	8 Hrs	11 Hrs					
	<b>Total</b>					<b>42 Hrs</b>					
14	<b>Internship</b>	Two Month Summer Internship from 1 <sup>st</sup> May to 30 <sup>th</sup> June is Compulsory.									
15	<b>Examination Scheme – Final Examination will be based on syllabus of both years.</b>										
	ppr	Subject	Subject Code	Theory			Practical			Total	
				Duration	Max	Min	Duration	Max	Min	Max	Min
	1	English (Communication Skill)	<b>90000001</b>	3 Hrs	<b>70</b>	<b>25</b>	3 Hrs	<b>30</b>	<b>15</b>	<b>100</b>	<b>40</b>
	2	Elective – I	--	3 Hrs	<b>70</b>	<b>25</b>	3 Hrs	<b>30</b>	<b>15</b>	<b>100</b>	<b>40</b>
	3	Elective – II	--	3 Hrs	<b>70</b>	<b>25</b>	3 Hrs	<b>30</b>	<b>15</b>	<b>100</b>	<b>40</b>
	4	Pathology & Surgical	<b>20140019</b>	3 Hrs	<b>100</b>	<b>35</b>	3 Hrs	<b>100</b>	<b>50</b>	<b>200</b>	<b>85</b>
	5	Anatomy &Orthopedics	<b>20140020</b>	3 Hrs	<b>100</b>	<b>35</b>	3 Hrs	<b>100</b>	<b>50</b>	<b>200</b>	<b>85</b>
	6	Electrotherapy & Exercise therapy	<b>20140021</b>	3 Hrs	<b>100</b>	<b>35</b>	3 Hrs	<b>100</b>	<b>50</b>	<b>200</b>	<b>85</b>
	<b>Total</b>									<b>900</b>	<b>375</b>
16	<b>Teachers –</b> Three Teachers per batch for vocational component. For English, Elective-I & II guest faculty on clock hour basis.										
17	<b>Student have to choose any one subject for Elective-I and Elective-II from below given subjects</b>										
18	<b>a) For Elective I – Student can choose any one subject</b>					<b>b) For Elective II – Student can choose any one subject</b>					
	<b>Code</b>	<b>Subject Name</b>				<b>Code</b>	<b>Subject Name</b>				
	90000011	Applied Mathematics				90000021	Applied Sciences (Physics & Chemistry)				
	90000012	Business Economics				90000022	Computer Application				
	90000013	Physical Biology (Botany & Zoology)				90000023	Business Mathematics				
	90000014	Entrepreneurship									
	90000015	Psychology									

**Subject : – Pathology & Surgical - 1 st Year**

**Subject Code : 20140019**

Sr. No.	Topic	Theory & Practical	
1	<b>Pathology &amp; Surgical</b>	<p><b>Part A: Pathology</b></p> <p><b>Unit 1: Physiology of Cells</b>                      Definition of Physiology- tissue, organs and systems, Morphology and functions of cell, Types and importance of intracellular junctions, Transport mechanism across the cell, chemical messengers, Ion channels in the cell membrane and their physiological importance</p> <p><b>Unit 2: Blood</b>                      Composition of blood, Red Blood, White Blood, Immunology, Blood coagulation, Blood Groups.</p> <p><b>UNIT 3: BODY TEMPERATURE</b></p> <p><b>UNIT 4: BIO CHEMISTRY</b></p> <p><b>UNIT 5: BIO PHYSICS</b></p> <p><b>Unit 6: Respiration</b>                      Functional Anatomy of Respiratory system, Mechanism of Ventilation, Gaseous exchange, Gas Transport, Control of Respiration, Hypoxia.</p> <p><b>Unit 7: Circulation</b>                      Functional organization, Initiation of heart beat, Electrocardiogram, Heart as a pump, Cardiac Output, Haemodynamics, Blood pressure-its determinants and control, Special circulations.</p> <p><b>Unit 8: Digestive System</b>                      Structure of G.I tract, Functions, Motility/ Movements, What is Secretion, Digestion and Absorption? Regulations of Secretions and Movements, Details of Individual Organ Structure and Functions.</p> <p><b>Unit 9: Kidneys and Skin</b>                      Functional Anatomy of Kidneys, Mechanism of Urine Formation, Abnormal constituents of urine, Micturation, Technical Terms, Skin.</p> <p><b>Unit 10: Endocrine System</b>                      What for Endocrine Glands are important?, which are the Endocrine Glands present in our body?, Individual glands-their secretions, actions of hormones and applied aspect, Reproductive system, Functional anatomy of reproductive system and the physiology of the same.</p> <p><b>Unit 11: Muscles and Neuromuscular Transmission</b>                      Neuron structure and functions, Muscles, Neuromuscular transmission.</p> <p><b>Unit 12: Central Nervous System</b>                      Major divisions of CNS, The Receptors ,Reflexes, Sensory Tracts, Motor Tracts, Brain stem and EEG, Cerebellum and Basal Ganglia, Hypothalamus, Thalamus, and Limbic System, Cerebrum, Higher Functions, ANS, CSF.</p> <p><b>Unit 13: Special Senses</b>                      Olfaction, Gustation, Hearing, Vision.                      handouts of slides, Print slides notes or handouts, Running A Presentation.</p>	

## **Pathology & Surgical - 2<sup>nd</sup> Year**

### **Part B: Surgical**

#### **Unit 1: Nutrition**

Vitamin A, Vitamin D, Vitamin E, Vitamin K, Thiamine, Vitamin B-group Vitamins, Vitamin C, Calcium, Iron, Iodine, Protein Energy Malnutrition(PEM), Protein Energy Malnutrition (PEM) in Adults, A food borne Intoxications, Food Toxicants, Anemia, Neutropenia, Neutrophilia, Lymphadenopathy, Thrombocytopenia.

#### **Unit 2: Antibiotics and Chemotherapeutic Agents**

Bacteriostatic and Bactericidal agents, classification of Penicillin G, Cephalosporins, Quinolones, Amino glycosides, Antibiotics against anaerobes, Antiviral compounds of clinical use, Antifungal Drugs, Combination of Antimicrobial agents, Antiseptic, Physical agents, Classification of Chemical Disinfectants, Water-borne Diseases, Examination of milk, Modes of spread, Internal quality Control(IQC), Vaccine, Immunoglobins and Antisera

#### **Unit3: Respiratory Diseases**

Common causes of Hypercapnia, Lung Defences, Investigation of Respiratory Disease, Dyspnoea difficulty in breathing, Differential diagnosis of acute severe dyspnoea, Differential diagnosis of chest Pain, Causes of Haemoptysis, Respiratory failure, Chronic Obstructive Pulmonary disease(COPD), Bronchial asthma, Bronchiectasis, Adult Respiratory Distress Syndrome (ARDS), Tuberculosis in childhood, Acute sinusitis, Acute Maxillary Sinusitis, Acute Frontal sinusitis, Acute Tonsillitis.

#### **Unit 4: Cardiovascular Diseases**

The Coronary circulation, Electrocardiography(ECG), Radiology, Some common causes of Chest Pain, Breathlessness(Dyspnoea), Classification of Congenital Heart Diseases, Ventricular Septal Defect, Patent Ductus Arteriosus, Right to Left Shunts with Pulmonary Stenosis, Rheumatic Heart disease, Mitral Stenosis, Mitral Regurgitation, Hypertension, Angina, Myocardial Infarction.

#### **Unit 5: Gastrointestinal Disorders, Diabetes and Obesity**

Gastro-Oesophageal Reflux Disease, Hiatus hernia, Achalasia of the Oesophagus, Peptic Ulcer Disease, Chronic Pancreatitis, Inflammatory Bowel Disease, Aetiological Classification of Diabetes Mellitus, Diabetic ketoacidosis, Complications of diabetes, Aims of Dietary Management, Obesity, Drug Dietary for Hyperlipidamia.

	<p><b>Unit 6: Skin disorders</b> Disorders of pigmentation, Oculocutaneous albinism, Vitiligo, Viral infection of the skin, systemic Lupus Erythematosus, Idiopathic Inflammatory Myopathies, Scabies, Pediculosis corporis (body lice), Fungal disease of the skin, Candidiasis, Acute bacterial infection, Furuncles and carbuncles, Diphtheria, tuberculosis, Lupus vulgaris, Parasitism, Infection and Disease, Modes of Transmission, Virulence factors of Micro-organisms, Disinfection.</p> <p><b>Unit 7: Haemorrhage, Shock</b> Classification, Pathophysiology of Haemorrhagic shock, Shock, Specific Measures, Burns, Skin Grafting, Blood Transfusion, Complications of Blood Transfusion and Treatment, Complications in Anesthesia.</p> <p><b>Unit 8: Wound</b> Wound Closure or Wound Suturing, Factors Affecting Wound Healing, Hypertrophic Scar and Keloid, Sinus and Fistula, Differential Diagnosis of Leg Ulcer, Treatment of the Ulcers, Traumatic Ulcer, Tropical Ulcer, Diabetic Ulcer foot, Fluids, Electrolytes, Nutrition, Hypovolaemia, Hypervolaemia, Hyponatraemia, Hyponatraemia, Hypokalaemia, Hyperkalaemia, Nutritional requirements, Acid-Base Balance, Acidosis, Alkalosis</p> <p><b>Unit 9: Stomach and Duodenum</b> Chronic Peptic Ulcer, Treatment of Gastric Ulcer, Acute Cholecystitis, Paralytic Ileus</p> <p><b>Unit 10: Hernia</b> Indirect Hernia, Treatment, Strangulated Hernia, Recurrent Hernia, Femoral Hernia, Umbilical Hernia of Adults, Incisional Hernia.</p> <p><b>Unit 11: Chest</b> Blunt Trauma to the Chest, Pulmonary Injuries, Intercostal Tube (ICT) Insertion (Closed Tube Thoracostomy), surgical Emphysema, Tracheostomy, Disease of the Chest, Surgical Treatment of Pulmonary Tuberculosis, The diaphragm.</p> <p><b>Unit 12: Kidney and Ureter</b> Polycystic Kidneys (Congenital cystic Kidneys), Renal stones, Hydronephrosis, Renal Tuberculosis, WILM's Tumor, Renal cell Carcinoma (RCC), Rupture of Urethra, Stricture Urethra, Structural Anatomy of the Prostate, Benign Prostatic Hyperplasia (BPH), Carcinoma of the Prostate, Treatment of Carcinoma of Prostate, Phimosis, Paraphimosis, Testicular tumors, Fournier's Gangrene (Idiopathic Gangrene of Scrotal Skin)</p> <p><b>Unit 13: Peripheral Vascular Disorders</b> Causes of lower limb ischaemia, Treatment of Peripheral Vascular Disease (T.A.O. and Atherosclerosis) Acute Arterial Occlusion, Raynaud's Disease (Primary Raynaud's Phenomenon), Cervical RIB, Gangrene.</p>	
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**Subject : – Anatomy & Orthopedics - 1 st Year**

**Subject Code : 20140020**

Sr. No.	Topic	Theory & Practical	
	<b>Anatomy &amp; Orthopedics</b>	<p><b>Part: A-Anatomy</b>  <b>Unit 1: General Anatomy</b>                      Anatomical terms and Planes, Basic tissues of the body, Joints.</p> <p><b>Unit 2: Bones and Joints of the Body</b>                      Bones of the upper limb, Bones of the lower limb, Bones of the thorax, Vertebral column, Bony Pelvis, Skull, Major joints of the body, Joints of the upper Limb, Joints of the lower Limb, Arches of the foot, Joints of the neck.</p> <p><b>Unit 3: Muscular System</b>                      Muscles of the upper Limb, Muscles of the lower Limb, Muscles of the thoracic wall, Diaphragm, Muscles of the head and neck, Muscles of the mastication, Muscles of the soft palate, Muscles of the tongue, Muscles of the larynx, Muscles of the eye ball, Muscles of the back, Muscles of the anterior abdominal wall, Muscles of the pelvic floor.</p> <p><b>Unit 4: Cardio Vascular System</b>                      Heart and Pericardium, Arteries of the upper limb, Veins of the upper limb, Arteries of the lower limbs, Veins of the lower limb, Blood vessels of the thorax, arteries of the head and neck, Blood vessels of the cranial cavity and brain, Venous return from the head and neck, Blood vessels of the abdomen and pelvis, Portal vein, Inferior vena cava, Lymphatic system.</p> <p><b>Unit 5: Respiratory System</b>                      Parts of the respiratory system, Nose, Nasal cavity, Nasopharynx, Larynx, Trachea, Pleura, Lungs.</p> <p><b>Unit 6: Digestive System</b>                      Parts of the digestive system, Oral cavity, the teeth, Pharynx, Esophagus, Stomach, Small intestine, Large intestine, Accessory organs.</p> <p><b>Unit 7: Urinary System</b>                      Parts of the urinary system, Kidneys, Ureter, Urinary Bladder, Male urethra, Female urethra.</p> <p><b>Unit 8: Reproductive System</b>                      Male reproductive system, Female reproductive system.</p> <p><b>Unit 9: Endocrine System</b>                      The endocrine glands, Thyroid gland, Parathyroid gland, Suprarenal glands, Pituitary gland, Thymus.</p> <p><b>Unit 10: Nervous System</b>                      Brain, Sub cortical gray matter of the cerebrum, Brain stem, Cerebellum, Spinal cord, Ganglion, Nucleus, Synapse, Myelin sheath, Neuroglia, Ventricles of the Brain and cerebro spinal fluid, Peripheral nervous system, Cranial nerves, Peripheral nerves, Nerves of the upper Limb, Nerves of the lower limb, Nerves of the thorax, Nerves of the head &amp; neck, Nerves of the Abdomen &amp; Pelvis, Autonomic nervous system.</p> <p><b>Unit 11: Special Senses</b>                      Ear, Eye, Lacrimal Apparatus, skin and its appendages, Skin appendages.</p>	Bones of upper and lower limb. Identification and description

	<p><b>Anatomy &amp; Orthopedics - 2 nd Year</b></p> <p><b>Part B: Orthopedics</b></p> <p><b>Unit 1: Examination of Musculoskeletal System</b> Subjective examination, Objective examination, Functional examination, Psychological and vocational-oriented assessment, General plan of physical examination and evaluation.</p> <p><b>Unit 2: Soft Tissue Injury</b> Examination and evaluation, Muscle and tendon injury, Injury to the ligament, Injury to the synovial membrane, Injury to the nerve, Wrist Sprain, Ganglion.</p> <p><b>Unit 3: Fractures</b> General fractures, Fracture of the upper limb, Fracture of the Vertebral Column, Sternum and ribs, Fractures of the lower limb.</p> <p><b>Unit 4: Arthropathies</b> Degenerative arthropathies, Inflammatory arthropathies, Metabolic arthropathies.</p> <p><b>Unit 5: Polymyelitis</b> History, Virology, Pathology, Stages of the disease, Physical Examination, Course of recovery, Treatment, Bulbar paralysis, Surgery, Complications.</p> <p><b>Unit 6: Low Back Pain (LBP)</b> Structural and Biomechanical considerations, Etiology of low back pain, Pathology of disc lesions, Physical examination, Working diagnosis of LBP, Sciatica, Miscellaneous.</p> <p><b>Unit 7: Infections of the Bone and Tumors</b> Infection of bones and joints and Bone tumors</p> <p><b>Unit 8: Joint Surgery</b> Arthrodesis, Arthroplasty and Amputations.</p> <p><b>Unit 9: Spinal Disorders</b> Congenital Spinal Abnormality, Infective disease of spine, Development disorders of the spine.</p>	<p>Bones of upper and lower limb. Identification and description</p>
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**Subject : – Electrotherapy & Exercise therapy - 1 st Year**  
**Subject Code : 20140021**

Sr. No.	Topic	Practical	Practical
	<p><b>Electrotherapy &amp; Exercise therapy</b></p>	<p><b><u>Part 1: Electrotherapy</u></b></p> <p><b>Unit 1: Basic Electrical Components</b> Electric Shock.</p> <p><b>Unit 2: CPM</b></p> <p><b>Unit 3: Fluidtherapy, UVR, Laser, Mentamove.</b></p> <p><b>Unit 4: Conductive and Convective Heating</b> Heat exchange by conduction, Hydro collator packs, Hot compresses, Paraffin wax, Peloids-Mud Packs and Heat packs, Hot air Baths, Contrast Baths, Electric Heating Pad.</p> <p><b>Unit 5: Cryotherapy</b> Properties of cold.</p> <p><b>Unit 6: Conversive Heating Techniques</b> Short wave Diathermy, Pulsed short wave Diathermy, Pulsed Microwave Diathermy, Infrared Radiation.</p> <p><b>Unit 7: Therapeutic Ultrasound</b> The Production of ultrasound, Ultrasound treatment parameters, Effects of Ultrasonic waves on tissues, Uses of ultrasound, Dangers, Contra-indicators, Techniques of application, Dosage.</p> <p><b>Unit 8: Ultra-Violet Radiation</b> Physiological Effects of ultra-violet, Photosensitization, Indications for Ultra-violet Irradiation, Contra-indications to Ultra-violet irradiation, Dangers of ultra-violet irradiation, Techniques of application.</p> <p><b>Unit 9: Low Frequency Currents</b> Faradic-type currents, Faradism used in various conditions, Causes of denervation.</p> <p><b>Unit 10: Medium Frequency Currents</b> Interferential currents, Transcutaneous nerve stimulators (TNS).</p> <p><b>Unit 11: The Constant Direct Current</b> Physiological effects, Therapeutic effects, Uses and method of application, Technique of treatment, Treatment in baths, Dangers and precautions, Ionisation, Effects of various ions, Technique of medical ionisation, Technique for special areas.</p> <p><b>UNIT 12: Traction</b> Physiological effects, Technique of application, indication &amp; contraindications</p>	<p>Clinical Practice</p>

		<p><b>Unit 13: Basics of Neuro-Anatomy and Physiology</b> Anatomy of Nervous System, Some Physiological concepts, Disturbance of Afferent Information.</p> <p><b>Unit 14: Clinical Outcomes of Neurological Patients</b> Abnormality of Movement, Other problems of patient with neurological Impairment.</p> <p><b>Unit 15: Cerebrovascular Accidents (CVA) Stroke</b> Definition, Anatomy and Physiology, Types of Stroke, Risk factors for stroke, Threatened Stroke, Investigation and Management.</p> <p><b>Unit 16: Head Injury</b> Pathophysiology, Symptoms and Signs, Investigation, Complication of head injury, Management &amp; treatment of head injury, Predication of outcome.</p> <p><b>Unit 17: Cerebellar Dysfunction</b> Functions of the cerebellum, Etiology of cerebellar lesions, Clinical Features, Assessment and Management.</p> <p><b>Unit 18: Multiple Sclerosis</b> Pathophysiology, Aetiology, Clinical Features, Course and Prognosis, Laboratory Diagnosis, Differential Diagnosis and Management.</p> <p><b>Unit 19: Parkinsonism</b> Aetiology, Clinical Features, Signs and Management.</p> <p><b>Unit 20: Spinal Cord Lesions</b> Non Traumatic Lesions, Traumatic Lesions, Spinal cord Lesions- management, Progressive Cord Lesions, Management of Anesthetic Skin.</p> <p><b>Unit 21: Polyneuropathy</b> Anatomy of the PNS, Aetiology of polyneuropathies, Pathological changes in Peripheral neuropathy, Clinical features, Clinical diagnosis, Medical Management, Principal Polyneuropathic Syndromes.</p> <p><b>Unit 22: Motor Neurone Disease</b> Presentation, Diagnosis and Symptoms.</p> <p><b>Unit 23: Peripheral Nerve Injuries</b> Degeneration and Regeneration, Classification and Causes, Diagnosis, Prognosis, Factors before Repair, Reconstruction.</p> <p><b>Unit 24: Spina Bifida and Hydrocephalus</b> Incidence, Hydrocephalus, Spina Bifida Cystica(APERT A), Neonatal Physiotherapy, Spinal Deformity in Spina Bifida, Spinal Deformity I Spina Bifida, Management of Neurogenic bladder and bowel.</p>	<p>Massage Goneometry Manual Muscle Testing Active And Passive Movements Suspension Therapy PNF Coordination Exercises</p>
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	<p><b>Unit 35: Management of Spina Bifida and Hydrocephalus</b> Deformities, Physiotherapy, Ambulation, Spinal deformity in Spina Bifida, Management of anaesthetic Skin, Management of Neurogenic Bladder and Bowel, Education, Independent Training, The Adult with Spina Bifida.</p> <p><b>Electrotherapy &amp; Exercise therapy</b> - <b>2<sup>nd</sup> Year</b></p> <p><b><u>Part B: Excercisetherapy</u></b></p> <p><b>Unit 1: Introduction</b> Introduction to Exercise Therapy, Aims of Exercise Therapy, Techniques of Exercise Therapy, Approach to the Patient's Problems, Assessment of the Patient's Condition, Planning the treatment.</p> <p><b>Unit 2: Mechanical Principles</b> Force, Tension, Mechanics of position, Mechanics of Movement, Speed, Velocity, Work, Energy, Power, Acceleration, Momentum, Inertia, Friction, Simple Machines ,pendulums and elasticity.</p> <p><b>Unit 3: An Introduction to Movement Therapy</b> The body levers, Types of movement and Posture, Types of muscle contraction, Patterns of movement.</p> <p><b>Unit 4: Starting Positions</b> Fundamental Positions, The Pelvic tilt, Derived positions.</p> <p><b>Unit 5: Active Movement</b> Voluntary Movement, Involuntary Movement and Reflex Movement.</p> <p><b>Unit 6: Relaxation</b> Muscle tone, Postural tone, Voluntary Movement, Mental attitudes, Degrees of Relaxation, Technique.</p> <p><b>Unit 7: Passive Movement</b> Classification, Principles of giving related passive movements, Effects and uses of relaxed passive moveme.</p> <p><b>Unit 8: Group Exercise</b> Importance of Group exercise, General Teaching Technique, Mixed Ability Groups, Preparation of group Activities, Progression of Exercise, Home Exercises.</p> <p><b>Unit 9: Posture</b> Inactive postures, Active postures, The postural mechanism, the pattern of posture, Development of good posture, Factors that predispose to poor posture, Principles of Re-education, Technique of Re- education, Presentation of a good posture.</p>	<p>Clinical Practice</p> <p>Infrared Paraffin Waxbath Hot Moist Packs Ice Therapy Ultra sonic Therapy Ultraviolet Radiation Interrupted Galvanic / Faradic Stimulation Direct Current Interferential Therapy</p>
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		<p><b>Unit 10: Walking Aids</b> Crutches, Preparation for Crutch Walking, Sticks.</p> <p><b>Unit 11: Mobilization of Joints</b> Structural features, Classification of joints, Limitations of the range of joint movement, Prevention of joint stiffness, Methods of mobilizing joints, Assessment of progress.</p> <p><b>Unit 12: Strengthening of Muscles</b> Structural features, Muscle work, Muscular weakness and paralysis, The initiation of muscular contraction, Strengthening methods, Technique of strengthening muscles, Recording of muscle strength.</p> <p><b>Unit 13: Neuromuscular Co-ordination</b> Co-ordination movement, Inco-ordination, Re-education, Frenkel's exercises</p> <p><b>Unit 14: Physiotherapeutic Approach to a Patient with Neuro-Musculo-Skeletal Problems.</b> Aims, Planning of specific Programme, Specific considerations.</p> <p><b>Unit 15: Physiotherapy in Soft Tissue Injuries</b> Physiotherapy objectives, physiotherapy management, Treatment of various soft tissue injuries, Treatment of Plica Syndrome, Physiotherapy following orthroscopy, Treatment of UL injuries.</p> <p><b>Unit 16: Physiotherapy Management of Fractures</b> Methodology of management, Fractures of lower extremity, Complications following fractures, Physiotherapy in UL injuries, Physiotherapy in LL injuries.</p> <p><b>Unit 17: Physiotherapy in Spinal Injuries</b> Physiotherapy in spinal shock, Bladder &amp; Bowel management, Management of injuries of thoracic &amp; lumbar spine, Treatment of paraplegia.</p> <p><b>Unit 18: Physiotherapy in Arthroplasty</b> Hevireplacement arthroplasty, Physiotherapy management of excisional arthroplasty, Physiotherapy management of total knee replacement arthroplasty, Physiotherapy management of upper limb replacement arthroplasty</p> <p><b>Unit 19: Physiotherapy in Amputation</b> Physiotherapy management of amputation, Mobilization and strengthening exercises, Prosthesis, application and checking of prosthesis, Re-education with prosthesis, Complications.</p> <p><b>Unit 20: Physiotherapy in Disorders of the Spine</b> Objectives of Physiotherapy management, Physiotherapy management of Pott's spine,</p>	
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	<p>Physiotherapy management of scoliosis, Physiotherapy management of kyphosis, Lordosis, Physiotherapy management of cervical syndrome, Treatment, Physiotherapy of prolapsed cervical disc.</p> <p><b>Unit 21: Physiotherapy in Low Back Pain</b> Conservative management of low back pain, Treatment of idiopathic low back pain, Back pain due to faulty posture, Physiotherapy management of chronic back pain, Treatment of disc lesion, Prevention of low back pain.</p> <p><b>Unit 22: Physiotherapy in Osteoarthritis</b> General Principles of treatment, Prevention, Treatment, Osteoarthritis of the knee, Physiotherapy management, Role of splints.</p> <p><b>Unit 23: Hand Injuries</b> Splints, P.T management of flexor tendon injuries, P.T management of extensor tendon injuries, Prevention of common complications.</p> <p><b>Unit 24: Obstetrics and Gynaecology in Exercises in pre and Postnatal Period</b> Postpartum Physical condition, Routine Postnatal Care, The Postnatal Check, Postnatal Physiotherapy, Immediate Postnatal Problems, Long-term Postnatal Problems</p> <p><b>Unit 25: Introduction Manipulation: Definition, Types, Application</b></p> <p><b>Unit 26: Introduction Maitland's Manipulation</b></p> <p><b>Unit 27: Introduction McKenzie Technique of Spinal Manipulation</b></p> <p><b>Unit 28: Introduction Mulligan's Concepts of Manipulation</b></p> <p><b>Unit 29: Introduction Cyriax's Technique of Manipulation</b></p> <p><b>Unit 30: Introduction Neuro Developmental (Bobath) Treatment</b></p> <p><b>Unit 31: Introduction Rood Approach</b></p> <p><b>Unit 32: Introduction Motor Relearning Programme</b></p> <p><b>Unit 33: Introduction Movement Therapy of Brunnstrom</b></p> <p><b>Unit 34: Introduction Proprioceptive Rehabilitation</b></p> <p><b>Unit 35: Introduction Plyometric Exercises</b></p>	<p>Maitlands Manipulation McKenzie Cyriax Manipulation Proprioceptive Rehab Plyometrics</p>
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## List of Equipment to be available in Institute

1. Wheel Chair
2. Goniometer
3. Inch tape
4. Knee hammer
5. BP apparatus
6. Suspension table
7. Examination table
8. Shoulder wheel
9. Quadriceps table
10. Static Bicycle
11. Supination-pronation board
12. Ankle Exercises
13. Swiss ball, Medicine balls
14. Traction table
15. Finger ladder
16. Parallel bars
17. All types of walkers
18. All types of crutches, sticks
19. Ropes and pulleys
20. Springs, slings
21. Cervical collar, LS belt
22. Equilibrium board
23. Re-education board
24. Splints
25. Crepe bandage
26. Electrotherapy equipments
  - i) Wax bath
  - ii) Auto tract (Cervical & lumbar traction machine)
  - iii) US (Ultra Sound)
  - iv) Electrical Muscle stimulator
  - v) Interferential therapy
  - vi) Short wave diathermy
  - vii) Ultra Violet radiation
  - viii) TENS
  - ix) Massager (Vibrator)
  - X) Infra red (luminous/non luminous)
  - xi) Hydrocollator packs
  - xii) Heat pads

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