

COURSE TITLE: PHYSIOTHERAPY TECHNIQUES–I & CLINICAL PRACTICE

STUDY HOURS: 60+160
PAPER: 01
Term : 3rd

MARKS
THEORY 120
PRACTICAL: 30
TIME: 03HRS

COURSE CONTENTS STUDY HOURS
(Theory +Practical)
6+30

A. SPECIAL ANATOMY

A1. Skeletal system

- A1.1 Classification and general features of bones & joints
- A1.2 Bones of upper limb
- A1.3 Bones of lower limb
- A1.4 Joints of upper & lower limbs, classification of joints and Bones.
- A1.5 Essential features of each type.
- A1.6 Kind of movement permitted in joint institution of movements' structure of each joint chief relation.
- A1.7 Skull-general features, bone and position of bone.
- A1.8 Vertebral column, Sternum & Ribs.
- A1.9 Foot
- A1.10 Description of Carpus, metacarpus and phalangeal bones and their movements

A2. Muscles: 6+30

General anatomy of muscles, their classification and action. Nerve Supply & actions of various limbs & body muscles including diagrams, their nerve supply with special emphasis on their group action as against antagonist, synergist.

A3. NERVOUS SYSTEM:- 6+30

- A3.1 General Orientation of CN.S.
- A3.2 Brain & Spinal cord.
- A3.3 Sympathetic & para sympathetic system.
- A3.4 Cranial and peripheral nerves.
- A3.5 Distribution of 5,7,10,11. Name, & functions only of the other nerves.

A4. Cardio Vascular System 2+2

- A4.1 Heart-Aorta, major arteries of Limbs head, neck, brain, abdomen & thorax.
- A4.2 Veins of body
- A4.3 Lymphatic

A5 Digestive System: 2+2

- A5.1 Mouth

- A5.2 Pharynx esophagus
- A5.3 Gastrointestinal tract
- A5.4 Associated glands, salivary glands, liver, pancreas

A6 Endocrines 2+1

- A6.1 Pituitary, thyroid.
- A6.2 Parathyroid, suprarenal, etc.

A7 Excretory System / Uro-genital 3+3

- A7.1 Kidney, Urinary Bladder Gonads, Urethra.
- A7.2 genital system and reproductive system

A8. SURFACE ANATOMY 3+2

- A8.1 .Knowledge of various bony and soft land marks on body.
- A8.2. Correlation of these marks with deep structures.
- A8.3. Surface marking of various deep structures in body.
- A8.4 Measurements in limbs- recognition of various parts in limbs, abdomen, thorax, head & neck.

B. SPECIAL PHYSIOLOGY. 20+40

- B1 Physical principles of resting membranes potential in nerve & muscle, action potential and physiology of nerve impulse synaptic transmission.
- B2 Sympathetic and parasympathetic system.
- B3 Sensory system various types of sensations, their pathways and brain center.
- B4 Special senses. Eye, ear, taste, olfaction.
- B5 Motor system pyramidal and extra pyramidal.
- B6 Cerebellum RAS. Sleep, higher brain functions, EEG,
- B7 Functions of Hypothalamus.
- B8 Physiology skeletal muscle, smooth, cardiac muscle neuromuscular physiology.
- B9 EMG, myoneural junctions.
- B10 Physiology of respiration, cardiovascular system, Endocrine GIT, urinary system, blood, immune system.
- B11 Physiology of bones and Ca⁺⁺ metabolism.
- B12 Physiology of Exercise.
- B13 Metabolism.Diet & Nourishment especially in handicapped & paralyzed individuals.
- B14 Electrolyte physiology, water & Electrolyte balance PH regulation.

C. MYOLOGY 6+14

- C1 Demonstration of muscles (different groups with their function)
- C2 Demonstration of ligaments
- C3 Exercises Physiotherapy of sensory organs especially skin, briefly

other organ, to demonstrate on flip charts or projectors.

C4 Surface Marking (surface anatomy/ General anatomy)

D PRACTICAL **4+6**

Demonstration of all the above systems on

D1 Charts

D2 Equipments

D3 Slides/ Projectors

D4 Dummy's

D5 Skeleton (Individual bones and Whole)

Recommended books

Fundamental of Physiotherapy by Jaypee New Dehli

Text Book of electro therapy by Jag Mohan Singh by jypee New Dehli

Tiday's Physiotherapy by Stuart portor latest edition by Elsevier, India.

The principle of exercise by Dna Gardiner M.D

Anatomy and physiology for nurses by Roger Watson

Reference Books.

Tiday's message and remedial exercise be (J.O Wale) latest edition by 10 P Publishing LTD. UK

Clinical Medicine by Davidson's principle and practice of medicine (edited by CRW

Adwardsetal)BY ELBS

Clinical Anatomy by Richard Snell

COURSE TITLE: PHYSIOTHERAPY TECHNIQUES–II& CLINICAL PRACTICE

STUDY HOURS:	60+160	MARKS	
PAPER:	02	THEORY	120
YEAR:	2nd	PRACTICAL:	30
		TIME:	03HRS

COURSE CONTENTS STUDY HOURS
(Theory +Practical)
6+30

A Kinesiology	20+50
A 1 CLASSIFICATION OF PASSIVE MOVEMENTS.	2+6
A 1.1 Relaxed Passive Movements.	
A 1.2 Forced Passive Movements.	
A 1.3 Its technique and effects.	
A 2 Classification of active movements.	2+6
A 2.1 Assisted active movement its technique and effect.	
A 2.2 Resisted movement its technique and effect.	
A 2.3 Free active movements technique and effect.	
A2.4 Active Assistant and resisted movements technique and effect.	
A 3 BREATHING EXERCISES:	2+6
A 3.1 It techniques and effects.	
A 4 POSTURE DRAINAGE AND BREATHING CONTROL:	1+1
E4.1 Its techniques and effects.	
A5 DIFFERENT POSTURES: POSTURES:(Effects, uses and Muscle work)	3+6
A5.1 Standing.FKneeling	
A5.2 Sitting.	
A5.3 Lying.	
A5.4 Hanging.	
A5.5 Pelvic Tilt.	
A6 RE EDUCATION OF WALKING / GAIT TRAINING	2+6
A6.1 Without aids.	
A6.2 With Crutches	
A6.3 Wheel Chair	
A6.4 Stick and Braces.	
A7 SUSPENSION THERAPY:	2+6
A7.1 Introduction to suspension therapy.	

A7.2 Simple methods of suspension.

A7.3 Effects and uses.

A8 PULLEY CIRCUITS:

2+6

A8.1 Introduction to pulley and weight circuits.

A8.2 Effects and uses of pulley circuits.

A9 RELAXATION:

1+1

A9.1 Definition, Methods of promoting relaxation.

A9.2 Effects and uses.

A10 P.N. F. TECHNIQUES

3+6

A10.1 Basic technique.

A10.2 its effects and uses

B: PHYSIOTHERAPY TREATMENT AND TECHNIQUE

20+50

B1 NERVOUS SYSTEM

4+12

Classification of Nervous Diseases

B1.1 Upper Motor Neuron Diseases.

B1.1.1 Hemiplegia

B1.1.2 Cerebral Palsy.

B1.2 Lower Motor Neuron Diseases:

B1.2.1 Acute Aneuroid Poliomyelitis

B1.2.2 Progressive Muscular Atrophy

B1.2.3 Chorea and parkinsonism

B1.2.4 Peripheral nerve injuries

B1.2.5 Facial Paralysis.

B2 DISEASES OF MUSCLES.

2+4

B2.1 The Dystrophies.

B2.2 Myasthenia Gravis.

B3 DISEASES OF JOINTS.

3+10

B3.1 Osteoarthritis.

B3.2 Ankylosing spondylitis.

B3.3 Rheumatoid arthritis.

B3.4 Septic arthritis

B3.5 Gout

B4 DISEASES OF RESPIRATORY TRACT.

3+10

B4.1 In Bronchitis

B4.2 Bronchiectasis.

B4.3 Pneumonia -

B4.4 Bronchial Tuberculosis.

B4.5 Asthma.

B4.6 Pleurisy.

	B4.7Pleural. Effusion	
B5 FRACTURES.		2+6
	B5.1 Types, sites and its physiotherapy management.	
B6 DEFORMITIES.		2+6
	B6.1 Acquired and congenital, General principles of physiotherapy treatment.	
B7 General pre operative and post operative care of patients in physiotherapy		2+6
	B7.1 Lobectomy	
	B7.2 Pneumonectomy	
	B7.3 DVT (Deep Vein Therapy)	
	B7.4 Implanted Patients (Total Hip Joint Replacement)	
B8 PHYSIOTHERAPY IN CHEST SURGERY		1+3
	Lobotomy, Pnaumectomy	
B9 PHYSIOTHERAPY IN TRAUMATIC CONDITIONS		1+3
	B9.1Joint sprains.	
	B9.2 Synovitis.	
	B9.3 Bursitis.	
	B9.4 Tendinities.	
B10. INTRODUCTION TO HYDROTHERAPY, OUTLINE OF METHODS.USED, TECHNIQUES, TYPES OF BATHS EFFECTS AND USES.		2+4
B11. INTRODUCTION TO PARAFFIN BATHS, ITS APPLICATION, EFFECTS AND USES.		2+4
B12. MANUALAL THERAPY:-		6+20
	B12.1 Post operative physiotherapy.	
	B12.2 Chest physiotherapy	
	B12.3 Physiotherapy in orthopedics.	
	B12.4 Physiotherapy in peripheral nerve therapy.	
	B12.5 Physiotherapy for hemi-pelagic patient.	
	B12.6 Mobilization and gait training.	
	B12.7 Physiotherapy for paraplegic patients, exercises, bed positioning, complication, loss of sensations and management.	
B13. WAX THERAPY		2+2
	B13.1 Uses of wax therapy	
	B13.2 Combination, diagram of the tub, and contraindication	
	B13.3 Temperature setting and preparation of the patient	
B14. MECHANICAL SYSTEMS IN PHYSIOTHERAPY: -		2+2

- B14.1 Study the diagram of pulley and rope system.
- B14.2 Study and uses of shoulder wheel
- B14.3 User of ladders in gymnasium
- B14.4 Study with diagrams required in various exercises.
- B14.5 Study with diagram of quadriceps drill, its uses and types of exercises

B15.

EXERCISE THERAPY: -

2+6

- B15.1 Study of design, apparatus, equipment for passive and active exercise therapy.
- B15.2 usage of manual exercise therapy.
- B15.3 Indications or conditions for use.
- B15.4 To study the role of exercises in hemiplegia and paraplegia.
- B15.5 Indication for use of massage.
- B15.6 Contraindications of massage.

B16.

CHEST PHYSIOTHERAPY

2+6

- B16.1 To study conditions, effects and diagram showing trachea, bronchi and lungs.
- B16.2 To study the effects of physiotherapy regarding expectoration and oxygenation.
- B16.3 Applications in post-operative thoractomy.
- B16.4 Uses of chest therapy in ICU & CCU.

B17.

TRACTION APPARATUS

2+6

- B17.1 Uses of traction apparatus.
- B17.2 Study of manual traction.
- B17.3 Advantages and disadvantage of Traction.
- B17.4 Study of mechanical traction.
- B17.5 Cervical Traction its uses and effects.
- B17.6 Mechanical traction apparatus its uses and effects.
- B17.8 Pre and post therapy precautions for Cervical.
- B17.9 Time and duration the treatment required.

Recommended books

Fundamental of Physiotherapy by Jaypee New Dehli
 Text Book of electro therapy by Jag Mohan Singh by jypee New Dehli
 Tiday's Physiotherapy by Stuart portor latest edition by Elsevier, India.
 The principle of exercise by Dna Gardiner M.D
 Anatomy and physiology for nurses by Roger Watson

Reference Books.

Tiday's message and remedial exercise be (J.O Wale) latest edition by 10 P Publishing LTD. UK
 Clinical Medicine by Davidson's principle and practice of medicine (edited by CRW
 Adwardsetal)BY ELBS
 Clinical Anatomy by Richard Snell