

VEER MARMAD SOUTH GUJARAT UNIVERSITY
(MPT) MASTER OF PHYSICAL THERAPY

SECOND YEAR MPT

Sl.No	SUBJECT	THEORY MARKS
Paper I	Physiotherapeutics - Part-II (Medical & Surgical)	100
Paper II	Physical & Functional Diagnosis -Part-II	100

SPECIALITY PAPER (Select Any One Specialty)

MPT (Orthopedics)

Paper III	PT in Musculoskeletal	100
Paper IV	PT in Sports	100

MPT (Neuroscience)

Paper III	PT in General Neurology	100
Paper IV	PT in Neurosurgery & Pediatric Neurology	100

MPT (Cardio-Respiratory)

Paper III	PT in General Cardio-Respiratory Conditions	100
Paper IV	Cardio-Respiratory Rehabilitation & ICU	100

MPT (Obstetrics & Gynecology)

Paper III	PT in Obstetrics	100
Paper IV	PT in Gynecology	100

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TABLE II : Second Year MPT (13-24 Months)

Sr. No.	SUBJECTS	TEACHING HOURS		
		Theory	Practicals/ Clinicals	Total
PAPER-I	PHYSIOTHERAPEUTICS – PART II	100	100	200
PAPER-II	PHYSICAL AND FUNCTIONAL DIAGNOSIS – PART II	80	120	200

MPT (ORTHOPAEDICS)

PAPER-III	PT IN MUSCOLOSKELETAL	100	100	200
PAPER-IV	PT IN SPORTS	100	100	200

MPT(NEUROSCIENCE)

PAPER-III	PT IN GENERAL NEUROLOGY	100	100	200
PAPER-IV	PT IN NEURO SURGERY AND PAEDIATRIC NEUROLOGY	100	100	200

MPT(CARDIO RESPIRATORY)

PAPER-III	PT IN GENERAL CARDIO- RESPIRATORY CONDITIONS	100	100	200
PAPER-IV	PT IN CARDIO-RESPIRATORY REHABILITATION AND ICU	100	100	200

MPT (OBSTETRICS & GYNAECOLOGY)

PAPER-III	PT IN OBSTETRICS	100	100	200
PAPER- IV	PT IN GYNAECOLOGY	100	100	200

5	CLINICAL TRAINING	-	450	450
6	SEMINARS	-	150	150
	TOTAL TEACHING HOURS			1400 Hours

PRACTICAL EXAMINATION:

It should be aimed at examining clinical skills and competency of the candidates for undertaking independent work.

Practical examination will be conducted for Specialty papers only in Second Year and these practical will be of 100 marks in paper III and paper IV each.

VIVA-VOCE

Viva voce examination shall aim at assessing depth of knowledge. Logical reasoning, confidence and oral communication skills. Candidate will present dissertation work during viva-voce. The marks for viva-voce examination shall be 50 marks each for paper III & Paper IV of Second Year MPT (i.e. Specialty Papers)

Second Year MPT

	Practical Max Marks	Viva-Voce Max Marks
Paper III	100	50
Paper IV	100	50

EXAMINERS :

There shall be **two (2) examiners** in each **PAPER**. One of them shall be external from outside the university and the other shall be internal, preferably from the same college or as decided by the university.

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Paper - II

1. PHYSICAL AND FUNCTIONAL DIAGNOSIS – PART - II

1. Massage, mobilization and manipulations.
2. Geriatric physiotherapy
3. Aids and appliances, adaptive functional devices to improve neurological dysfunction.
4. Inhibition and facilitation techniques.
5. Exercise ECG testing and monitoring
6. Pulmonary function tests
7. Cardio vascular function disorders and principles of management, cardio respiratory function disorders and assessments.
8. Physical disability evaluation and disability diagnosis, Gait analysis and diagnosis

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Paper - I

PHYSIOTHERAPEUTICS (Medical)-Part-II

1. Physiotherapy in common conditions of skin
2. Physiotherapy in common vascular diseases.
3. Physiotherapy in deficiency diseases
4. Physiotherapy in respiratory disorders.
5. Physiotherapy management of Ischaemic heart diseases.
6. Cardiopulmonary medications and their effect on activity performance.
7. Exercise planning and prescription
8. Ergonomic aspects of exercise on oxygen, energy consumption MET value of various exercises and activity
9. Effect of aerobic, anaerobic as well as isometric and isokinetic exercises on cardiac function.
10. Physiotherapy in psychiatry.
11. Management of pain in Neuro and musculoskeletal disorders.
12. Physiotherapy management in arthritis and allied conditions.

PHYSIOTHERAPEUTICS (Surgical) – Part II

1. Physiotherapy management of post operative patients in cardiopulmonary disorders
2. Monitoring systems and defibrillators, artificial respirators
3. Physiotherapy in postoperative management of metabolic, hormonal, neoplastic and infective conditions of bones and joints.
4. Physiotherapy following arthroplasty, implants and soft tissue repairs.
5. Pre and postoperative physiotherapy in tendon transfer. Electrical stimulation and biofeedback procedures.
6. Physical therapy management following head injuries, in intensive care and neurosurgical procedures.
7. Physiotherapy following general surgery
8. Physiotherapy following Urosurgery
9. Physiotherapy following plastic surgery.
10. Physiotherapy management following selective and common cases of oncologic surgery
11. Physiotherapy following obstetric and gynecological disorders.

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MPT (ORTHOPAEDICS)

PAPER III

PT IN MUSCULOSKELETAL

SECTION-I

1. Exercise physiology, Fitness testing and exercise prescription
2. Principles of treatment of common sports injuries, protocols and their rationale
3. Biomechanics, architecture, function of hand , Pathomechanics of common conditions.
4. Hand assessment; treatment of common conditions viz. Hansen's disease, RA, Spastic Hand; RSD., Flexor tendon injuries.
5. Advanced Electro-therapeutics:
 - Physiology of pain
 - Pain management modalities and their rationale
 - Theoretical knowledge of EMG, NCV-- normal and in musculoskeletal conditions

SECTION-II

6. Principles of different schools of manual therapy- Cyriax, Maitland, McKenzie, Kaltenborn, Mulligan.
7. Properties of connective tissues
8. Basic knowledge of radiology-plain radiographs, bone scan, CT, MRI(brief introduction)
9. Basic knowledge of common drugs used in orthopedics- their effects, interactions, relevance to PT modalities (anti-inflammatories, analgesics, antipyretics, Antihypertensives, diabetic drug therapy) – for practical knowledge.
10. PT management of all orthopedic conditions including total joint replacement of upper limb and lower limb.
11. Neural tissue evaluation and treatment of UL/ LL

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PAPER-IV
PT IN SPORTS
SECTION-I

1. History of Sports Medicine
 - Ancient Greece and Gladiators, Hippocrates and Galon.
 - FIMS and its evolution.
2. Primary care sports medicine its scope and philosophy
 - Medical research in injury prevention
3. Medico-legal issues
 - Negligence, liability, Litigation, Basic principles to reduce the threat of litigation, Act of God, Assumption of risk, Contributing Negligence, Comparative negligence, Legal rights of disabled Athletes.
4. Sports Psychology
 - Role of sports psychologist
 - Predictive models of injury
 - Psychological factors involved in performance
 - Treatment for injury and pain
 - Injury prone profile
 - Crisis intervention
 - Techniques of relaxation
5. Sports Nutrition

Significance of nutrition; Common food fads;
Maximizing energy stores; Maintaining adequate hydration
Weight gain and loss; Optimizing pre-competition meal
Ergogenic Aids; Vegetarianism

UNIT II

- a) Sports
- Muscle fiber typing and prediction of sports selection and performance
 - Anthropometry and performance
 - Body composition
- b) Sports Physiology
- High energy phosphagen system
 - Cellular oxidation
 - Aerobic/Anaerobic Glycolysis
 - Kreb's cycle
 - Interrelationship with CHO, Protein, fat, Metabolic mill
 - Energy systems
 - VO₂ max and O₂ debt and deficit and Recovery
 - Lung volumes
 - Onset of Blood lactate Accumulation
 - COP and Exercises – altitude training – under H₂O
 - Body composition and measurement – Obesity/weight control
- c) Sports pharmacology
- Historical perspective; IOC and the Ban; Classification of doping
Drug Testing; Permitted Drugs; Ethical Dilemma

SECTION – II

UNIT III

- a) Principles of injury prevention, diagnosis, treatment and Rehabilitation
- History taking ; Intrinsic and extrinsic factors;
Work ergonomics and leisure; Training history;
Knowledge of the sport

UNIT IV

- a) Sports related injuries upper limb, Head and Neck
- b) Specific protocols for rehabilitation
- c) Common injuries to the Head, Neck, shoulder, upper arm, elbow, wrist, hand and fingers.

UNIT V

- a) Sports related injuries lower limb, spine
- b) Common injuries to hip, pelvis, thigh, leg, knee, ankle, foot, toes, low back pain
- c) Specific protocols for rehabilitation.

UNIT VI

- a) Pediatric sports medicine
Introduction; Adult and growing bone; Training guidelines;
Nutrition; Common problems
- b) Sports medicine for the handicapped
Classification of sports for paraplegics; MR;
Wheel chair athletes/Work prescription, opportunities availability;
Participation and prevention of injuries
- c) Chronic illness
 - a. Rheumatoid arthritis b. Scoliosis c. Diabetes
 - d. Hypertension e. Congenital heart disease
 - f. Asthma g. Exercise induced asthma
 - h. Sports Anemia i. Epilepsy
- d) Women
 - a. Similarities and differences between sexes
 - b. Effects of exercise on menstrual cycle and performance
 - c. Exercise and pregnancy, lactation, menopause and osteoporosis and prevention
 - d. Common injuries in women e. Care of breast

UNIT VII

- a) Traveling with teams
- b) Promotion of healthy lifestyle in the community (Exercise physiology)

UNIT VIII

- a) Sports specific injuries
Basket Ball; Hockey; Soccer ; Track and field;
Swimming and diving; Racket sports; Cycling injuries
Volley ball; Adventure Sports; Kabaddi; Combat sports
Martial arts; Dance
- b) Exercise in geriatrics
- c) Training guidelines in geriatric population
- d) Training to maintain fitness – general exercise prescription
- e) Role of electrotherapy in sports injuries – acute, chronic
- f) Taping, frictions, splinting on the field.

Practicals:

- Sports Biomechanics
- Sports radiology
- On site emergencies
- Assessment of training shoes
- Biomechanical analysis and evaluation of various games and sports and athletes
- Sports first aid – complete programme and structure drills and CPR
- Training methods and assessment of training schedules, nutritional evaluation and psychological counseling
- Attachment to teams and covering matches and tournaments and providing rehabilitation and treatment to injured athlete.
- Examination of neck, shoulder, elbow, wrist, hand, lowback, pelvis and groin, hip, knee, ankle and foot.

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M.P.T. (NEUROSCIENCE)

Paper – III

PT in General Neurology & Adult Neurology

SECTION – I

GENERAL NEUROLOGY

1. Neuro-anatomy and Neuro-physiology
 - Sensory system
 - Spinal cord and its connection
 - Brainstem and its connection
 - Cerebellum, Basal Ganglia, Cerebral Cortex, Limbic system and Hypothalamus
 - Neural control, Basis of muscle tone, Posture, Complex movement and Locomotion.
 - Special senses.
 - Peripheral nerves and Spinal nerves.
 - Autonomic nervous systems
 - Pain pathways and physiology of pain
 - Memory and learning
 - Circulation of brain
 - Fluid compartments and fluid balance in the CNS
 - Blood brain barriers
2. Normal sequential behavioral and physiological changes throughout the Developmental arc
3. Common facilitatory and inhibitory treatment techniques and their Neurophysiological basis
4. Various Physiotherapeutic Treatment Approaches in Neurological Rehabilitation – Bobath and NDT, Brunnstorm, Roods, PNF
5. Recent advances and trends in neurological rehabilitation

6. Motor control, Theories of Motor control & motor development & Principles of Motor learning
7. Reflex maturation – Neurophysiological basis
8. Basic knowledge of Radiology – Myelogram, CT & MRI. Ability to interpret reports
9. Basic Evaluation tools Glasgow coma Scale, Rancho Los Amigos Scale, modified Ashworth, Fugl-Myer, Berg balance
10. Basic knowledge of EMG & NCV and interpretation (excluding SSEP, Brainstem evoke potentials, Visual evoke potentials & Central motor nerve conduction studies)
11. Basic Knowledge of pharmacological drugs used for neurological conditions. Anti-seizure, Anti-hypertensive, ICCP-medicine, Parkinson's, Spasticity medicines (Baclofen, Botox)

SECTION – II ADULT NEUROLOGY

1. Neurological examination
2. Special Investigative procedures (in brief)
 - Blood and CSF – Protein, Glucose cells
 - Radiographs, myelo-gram
 - EMG/NCV – CT/MRI reports
 - Cardiac monitor – BP, HR, Respiratory
 - Indication for cessation of exercises
3. Disorders of movements including lesions in lower and upper motor neuro, Cerebellum & Basal ganglia
4. Cerebrovascular accidents.
5. Disorders of special senses with emphasis on Vestibular system (Clinical not instrumental)
 - a) Papilloedema and Increased in Intracranial pressure
 - b) Testing for abnormalities of visual fields, Supra-nuclear & Infra-nuclear disorders of ocular movements (Clinical not instrumental)

- c) Disorders of Equilibrium
 - Role of vestibular systems is postural control, postural abnormalities in vestibular disorders, vestibular system disorders, vestibular functions tests and clinical examinations. Assessment and Management of central vestibular disorders, vestibular Hypo function, bilateral vestibular dysfunction.
- 6. Disorders of speech and Languages, Perception and somatosensory and perceptual cognitive impairment (implications for PT)
 - a) Aphasia and its varieties and perceptual problems.
 - b) Syndromes caused by lesions of the frontal, temporal, parietal and occipital lobes.
 - c) Dyslexia
- 7. Disturbance of CSF & its circulation (Clinical Signs and symptoms of Hydrocephalus)
- 8. Intracranial Neoplasm and Para-neoplastic disorders (Signs and symptoms of glioma, meningioma, and acoustic neuroma).
- 9. Infections of Nervous System (Meningitis – types, encephalitis – types, GBS- types, Bulbar polio, Parasitic infection)
- 10. Demyelinating diseases of nervous system.
- 11. Degenerative diseases of nervous systems, metabolic disorders, Nutritional deficiency, Alcohol toxicity and disorders due to drug and other chemical agents.
 - a) Nutritional Polyneuropathy, Nutritional spinal spastic and ataxic syndrome
 - b) Alcoholic cerebellar degeneration, Cerebral atrophy in chronic alcoholics.
 - c) Hallucination (should be able to identify)
 - d) Disorders due to drugs and toxins - tetanus, Botulism, snakebites, Organophosphorus poisoning, tick paralysis, anti-neoplastic agents like vincristine.
 - e) Metabolic disease presenting as a syndrome of confusion, stupor or coma such as hypoxic encephalopathy, hypoglycemic encephalopathy, - diabetic acidosis, thyroid encephalopathy.

12. Disease of Spinal Cord (Lathyrism, Transverse myelitis, Syringomyelia, radiculopathy, tumors of spinal cord, vascular disorder (infarction))
13. Diseases of Peripheral Nerves
 - a) (GBS, HSMN, Neuropathy (Diabetic, Alcoholic, Vitamin B12 deficiency, Hansen's CIPD, Metal Toxicity))
 - b) Injuries (PNI)
14. Diseases of Cranial Nerves
15. Disease of Muscles
Classification, Myopathies, Muscular dystrophies and neuromuscular junction disorders & Myotonias.
16. Neuro-psychological problems and solutions.
 - a) Various aspects of behavior – confusion, delirium, amnesia and dementia (Clinically identify these)
 - b) Disturbances of memory – its assessment
 - c) Disturbance of emotion, mood and social behavior – brief
 - d) General intellectual functions, memory functions, attention, language, visual perception, spatial processing, executive functions, emotional distress and behavioral problems (brief).
17. Musculoskeletal treatment concepts applied to neurology :
 - a) Adverse neural tissue tension (UL, LL)
18. Orthotic/Splinting/Wheel Chair in neurology (Planning)
 - CVA, PNI, CP, Spinal Cord Injuries
19. Community re-entry for the chronically disabled individual.

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PAPER IV
PT In Neurosurgery & Paediatric Neurology

SECTION – I
NEUROSUGERY

1. Detailed neurological examination
2. Special investigative procedures (in brief)
3. Traumatic Brain injury – Adult and children
 - Acute Care and Prognostic outcome
 - Cognitive Rehabilitation
 - Restoration and their management
 - Rehabilitation
 - Community integration
4. Traumatic Spinal Cord Injuries.
(Same as above)
5. Space Occupying Lesions in CNS.
 - Classification in Brief
 - Differential diagnosis and prognosis
 - Medical and Surgical Management (in brief)
 - Evaluation
 - Rehabilitation
 - Psychosocial problems
6. Vestibular disorders and management.
7. Developmental diseases of nervous system and Surgical management and Physiotherapeutic approach and management.
8. Surgical management in disturbances of CSF and its circulation.
9. Cerebrovascular disease, Surgical management and rehabilitation
10. Surgical management in disease of the central nervous system and spinal cord and their rehabilitation.

SECTION – II
PAEDIATRIC NEUROLOGY

1. Normal motor development which includes prenatal development of Motor behavior, Motor developmental during infancy and childhood & development of skill.
2. Reflex Maturation.
3. Assessment and testing of infants and child development (in detail)
4. Different treatment & approaches-Bobath, Rood, Vojta, Sensory integration etc.
5. The high risk infant including neonatal assessments and development Intervention
6. Maturation, Pathophysiological and recovery process in CNS.
7. Cerebral Palsy and Physical therapy for the child with Cerebral Palsy.
8. Acute brain injury in childhood and physical therapy.
9. Minimal brain dysfunction; Learning disability, attention deficit disorders, Clumsiness; Autism
10. Mental retardation including Down's Syndrome: cognitive impairment and Developmental delay
11. Spinal Dysraphism & spina bifida.
12. Neuromuscular disorders in childhood and physical therapy intervention.
13. Infections of the nervous system.
14. Brachial Plexus lesions in Infancy.
15. Adaptive equipment for physically challenged children.
16. Rehabilitation of the multiple handicapped children.
17. The child, parents and the physiotherapist.
18. Community integration and other social aspects of rehabilitation.
19. Physical therapy in the public school.

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MPT (CARDIO-RESPIRATORY)

PAPER III

PT In General Cardio-Respiratory Conditions

SECTION-I

GENERAL CARDIO-RESPIRATORY

Anatomy and Physiology of the Cardio Respiratory system

Difference between the adult and paediatric lung and its implications on the respiratory system.

Biomechanics of the respiratory system

Assessment of the Cardio Respiratory System

Mechanical Support – Respiratory and Cardiac

O₂ Therapy

CPAP

Mechanical Ventilation – (types, modes – [adult and pediatric],

Indications, contraindications,
complications.)

Intra Aortic Balloon Pump

Ventricular assist devices.

Basic Clinical Interpretation of ABG, PFT, ECG, Radiographs and Other lab values like Serum Enzymes.

Blood Lipids; Complete Blood Count;

Coagulation Profile; Electrolytes;

Blood Urea Nitrogen and creatinine;

Serum glucose

Common drugs used in cardiac and respiratory conditions.

CPR

Exercise Testing
Exercise testing equipment
Protocols for Exercise testing
MET values for common activities
Maximal and sub maximal exercise testing
Indications and Contraindications
Safety and termination criteria
Interpretation of results
Prognostic Value of Exercise Testing

SECTION – II

METHODS OF PHYSIOTHERAPY TREATMENT

Massage manipulation
Breathing exercise
Breathing Control techniques
Positioning and postural drainage
Inhalation therapy – Aerosols and Nebulisers
Humidification
IPPB
Incentive Spirometry
Coughing, Huffing – Forced expiratory techniques
Airway Suctioning – [intubated and non intubated patients]
Relaxation techniques
Postural awareness, Thoracic and shoulder mobilization
Autogenic drainage
Respiratory muscle training and PNF.
Physiotherapy following various Medical and Surgical cardio Respiratory
Conditions.
Cardio Respiratory Physiotherapy techniques used in infants and children.
Cardio Respiratory Physiotherapy management following neurological and spinal
cord Injuries (Stroke, GBS, MS, MG, MD)

Works simplification and modification

Energy conservation techniques and education

Effects of aging on the Cardio Respiratory system

Health benefits; Prophylactic and therapeutic effects of exercise

Physical conditioning for health and fitness – Exercise prescription.

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PAPER-IV

Cardio-Respiratory Rehabilitation & ICU

SECTION – I

CARDIAC REHABILITATION

Goals of cardiac Rehabilitation

Cardiac Rehabilitation Team

Rationale for Cardiac Rehabilitation

Indications and precautions

Role of Physiotherapy

MET values for common activities; Perceived exertion scale Borg and 10point scale.

Assessment and Various Tests Protocols, comparison of the same

Various Phases of rehabilitation

Rehabilitation and Management following individual Medical and surgical Cardiac conditions – Adult and Pediatric

SECTION – II

PULMONARY REHABILITATION

Goals

Pulmonary Rehabilitation Team

Rationale of Pulmonary Rehabilitation

Role of Physiotherapy

Respiratory assessment and various Test Protocols

Exercise Prescription and Training techniques

Management of Obstructive and Restrictive conditiond

Management of Hyperventilation syndrome

Respiratory management following Neurological and spinal cord injuries

Paediatric Respiratory Care

Physiotherapy following various medical and surgical Pulmonary conditions

- Adult and Paediatric

ICU

Introduction to the ICU

Patient Monitoring

Bedside assessment of patient

Basic Therapeutics

Pharmacology of respiratory care

Airway care

Humidification and aerosol therapy

Oxygen therapy

Blood gases analysis

Mechanical Ventilation [Adult and paediatric]

Lung expansion therapy and chest Physiotherapy

Physiology of IPPV

Analgesics and Sedatives

Intensive therapy apparatus [Adults and Paediatric-Airways,
ETT, IT, Etc.]

Aims of treatment

Exercise and Treatment Techniques

Weaning from Ventilation

Management of acute respiratory failure

Respiratory distress Syndrome

Common neonatal problems – management in the NICU

Management of Acute MI [CAD]

Tetanus

ICU treatment in Neurological Disorders [-CVA, GBS, MG, MND, Muscular

Dystrophy etc.]

Organo-phosphorus Poisoning

Drug Overdose

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(OBSTETRICS & GYNECOLOGY)

PAPER – III

PT IN Obstetrics

SECTION – 1

CLINICAL OBSTETRICS

1. Anatomy of female reproductive organs.
2. Fundamentals of reproduction.
3. Placenta, fetal membranes, fetus.
4. Endocrinology in relation to reproduction.
5. Physiological changes during pregnancy.
6. Diagnosis of pregnancy.
7. Fetus in utero, fetal skull & maternal pelvis.
8. High risk pregnancy.
9. Complications in pregnancy.
10. Psychological & emotional aspects of pregnancy.
11. Antenatal care, Preconceptional counseling and care
12. Normal labor.
13. Injuries to birth canal.
14. Normal Puerperium.
15. **Operative obstetrics** – Dilatation and evacuation, Suction evacuation, Hysterectomy, Episiotomy, Forceps, Ventouse, Version, Destructive operation, Caesarean section, Symphysiotomy
16. Medical and surgical illness Complicating pregnancy
 - Anemia in pregnancy, Heart disease, Tuberculosis, Glycosuria in Pregnancy, Thyroid dysfunction with pregnancy, Jaundice in pregnancy, STD in pregnancy, Pyelonephritis, Epilepsy in pregnancy, Viral infections in pregnancy, Asthma in pregnancy, General surgery during pregnancy, Acute pain of abdomen during pregnancy
17. Preterm labor, Premature rupture of the membranes, Post maturity, Intrauterine death of the fetus,
18. Special Cases, Pregnancy with history of previous Caesarean section, Pregnancy in Rh-negative woman, Elderly primigravida, Grand multipara, Bad obstetric history, Obesity.
19. Malposition, Malpresentation, Cord prolapse,

20. Aids to diagnosis in Obstetrics – Radiology in obstetrics, Amniocentesis, Ultrasonic in obstetrics, Guides to clinical tests.

SECTION – II
OBSTETRIC PHYSIOTHERAPY

1. Role of Physiotherapy in Antenatal period.
 - a. Assessment of fetal well being.
 - b. Objectives of Physiotherapy.
 - c. Antenatal classes.
 - d. Fitness in childbearing year.
 - e. Preparation for labor.
2. Role of Physiotherapy in Labor Ward
 - a. Coping with labor.
3. Role of Physiotherapy in Postnatal period.
 - a. Objectives of Physiotherapy.
 - b. Postnatal complications.
 - c. Fitness in Postnatal period.
 - d. Assessment & handling of newborn.
4. Physiotherapy management in injuries to birth canal.
5. Pre & Post Operative Physiotherapy in Obstetrics.
6. Women in work place.
 - a. Ergonomic control of musculoskeletal injuries.
7. Women with special needs.

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PAPER IV
PT IN Gynecology

SECTION – I
CLINICAL GYNAECOLOGY

1. Anatomy of the female pelvic organs.
2. Development of genital organs & gonads.
3. Puberty Dynamics.
4. Menstruation.
5. Examination of gynecological patients & diagnostic aids.
6. Pelvic infections & infections of the individual pelvic organs.
7. Sexually transmitted diseases
8. Dysmenorrhoea & other disorders of menstrual cycles.
9. Displacement of uterus.
10. Infertility
11. Benign lesions of the vulva and vagina
12. Benign lesions of the cervix
13. Benign lesions of the uterus
14. Endometriosis and adenomyosis
15. Premalignant lesions
16. Genital malignancy
17. Urinary problems in gynecology.
18. Amenorrhoea - Physiological, Primary, Secondary
19. Contraception.
 - a. Barrier methods
 - b. Natural
 - c. IUCD
 - d. Steroidal
 - e. Emergency
 - f. Sterilization
20. Operative Gynecology.
 - a. Preoperative preparations
 - b. Postoperative care
 - c. Day care surgery
 - d. Gynecological operations
21. Menopause.

22. Special topics
 - a. abnormal vaginal discharge
 - b. Pruritus vulvae
 - c. Pelvic Pain
 - d. Postmenopausal bleeding
 - e. Low backache
 - f. Breast in gynecology
 - g. Vaginismus
 - h. Dyspareunia
 - i. Abdomino pelvic lump
 - j. Hirsutism
 - k. Galactorrhoea

23. Sexually Transmissible Diseases (STD)

24. Sexual Issues
 - a. Sexual abuse
 - b. Sexual dysfunction & counseling
 - c. Gender based sexual harassment.

SECTION – II
GYNECOLOGICAL PHYSIOTHERAPY

1. Physiotherapy assessment & management of the following gynecological disorders.
 - a. Pelvic floor dysfunction due to pelvic infections & infections of individual pelvic organs.
 - b. Displacement of uterus.
 - c. Menstrual disorders.
 - d. Urinary dysfunction.
 - e. Operative gynecology.
2. Eating disorders.
3. Diet & Exercises in Adolescence.
4. Menopause, Osteoporosis & role of Physiotherapy.
5. Aged women & role of physiotherapy.
6. Women in Sports & female specific problems.
 - a. Sports Amenorrhoea.
 - b. Injury to female reproductive tract.
 - c. Menstrual synchrony.
 - d. Sex determination.
 - e. Exercise & pregnancy.
7. Rehabilitation of Breast cancer
8. Physiotherapy management of lymphoedema

20. RECOMMENDED BOOKS

Second Year MPT

1. Manual of nerve conduction velocity techniques – De Lisa, Raven Press N. Y. 1982
2. Electro diagnosis in diseases of nerve and muscle – Kimura J. F. A. Davis Philadelphia
3. Mobilization of the extremity joints- Kattenbore, Harper and Row-Philadelphia, 1980
4. Chest physiotherapy in intensive care unit – Mackenzie,; Williams and Wilkins, Baltimore
5. Cardiopulmonary symptoms in physiotherapy – Cohen M, Churchill Livingston, London – 1988
6. Physical rehabilitation: Assessment and treatment – O Sullivan, F. A. Davis Philadelphia , 1994
7. Neuro Rehabilitation – Farber, W. B. Saunders, Philadelphia 1982
8. Orthopedic physical therapy – Donatteli, London Churchill Livingston, 1994
9. Yoga therapy – Kuvalayannanda Swami and Vinekar, Popular prakashan – Bombay 1992
10. Gait analysis – Perry J Black Therofare, New Jersey, 1992
11. Bio feedback – A practitioners guide – Kerb D Guiford Press
12. The neural basis of motor control – Black I Churchill Livingston – London 1987
13. Physical therapy management of Parkinson’s disease – Turnbull Gereade I. Churchill Livingston, London – 1994
14. Abnormal postural reflex activity caused by brain lesions – Bobath B Aspen publications, Rockville, 1897
15. Disorders of voluntary muscle – Eigel, Churchill, Livingston, Edinburgh 1988
16. A clinician’s view of neuro muscle disorder – Brook M. H. Williams and Wilkins, Baltimore 1986
17. Proprioception neuro muscular facilitation techniques- Knot M. and Voss, Harper and Row New York, 1972 2nd ed.
18. Stroke rehabilitation – Laidler, Chapman and Hall, London 1994
19. Motor relearning programme for stroke – Carr, Aspen publication, Rock Ville, 1987
20. Adult hemiplegia : evaluation and treatment – Bobath B. Heinemann London 1933
21. Paraplegia and tetraplegia- Bromley, Churchill Livingston, Edinburgh 1991
22. Child with spina bifida – Anderson E. M. and Spain B Methuen, London 1977
23. A manual of neonatal intensive care- Robert, N. R. C. Edward Arnold, London 1986
24. Measurement in physical therapy – Churchill Livingston , London 1988
25. Soft tissue pain and disability – Cailliet Rene, Jaypee Brothers, New Delhi 1992

26. Myofascial pain and dysfunction – Havell, Williams and Wilkins Baltimore 1983
27. Physical therapy of the low back- Twomey, Churchill Livingston, London 1995
28. Sport injuries of the shoulder- Souza Thomas A., Churchill Livingston London 1994
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30. Peripheral manipulation – Maitland G. D. Boston, Butter worth & Co. Boston 1997
31. Sport and physical therapy – Bernhardt Donna, Churchill Livingston, London
32. Hand rehabilitation – Christine – Churchill Livingston, London 1995
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37. Cardiac rehabilitation – Amundsen L. R. Churchill Livingston, London 1988
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39. Physiotherapy in obstetrics and gynecology – Polden and Mantle, Jaypee Brothers, New Delhi 1994
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2. Physiotherapy (CSP London)
3. American journal of physical medicine and rehabilitation.
4. Physiotherapy (Canada)
5. Physiotherapy theory and practice
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8. Clinical Kinesiology
9. Journal of Biomechanics
10. American Journal of sports exercises.
11. Pediatric physical therapy
12. Journal of rehabilitation research and development
13. Archives of physical medicine and rehabilitation
14. Journal of pediatric orthopedics
15. Journal of neurological sciences.

VEER MARMAD SOUTH GUJARAT UNIVERSITY

(MPT) MASTER OF PHYSICAL THERAPY

SECOND YEAR MPT

SECTION – IV

1. PHYSIOTHERAPY ETHICS

ETHICS OF PHYSICAL THERAPY PRACTICE AND LAW

At the end of the course the students would be able to outline.

1. Ethical principles in Physiotherapy practice with reference to standards of practice.
2. Rules of professional conduct and relationship between patient, colleagues, peer and other health care personnel.
3. Rules and Regulations of Indian Association of Physiotherapist for Physiotherapy practice.
4. Confidentiality, responsibility, implications of malpractice and negligence.
5. Legal responsibility of physiotherapists for their action in the professional context and understanding liability and obligation of a medico legal action.
6. Consumer protection act.