

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LO 154]

MAY 2019

Sub. Code: 8154

**MPT DEGREE EXAMINATION**  
**(Common to all Branches)**  
**(Regulations for the candidates admitted from 2018-2019 onwards)**  
**FIRST YEAR**  
**PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code : 278154*

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Define Balance. What are the various components of balance? How will you assess static and dynamic balance? Write in brief about Balance retraining.
2. Describe the principles, method of application, physiological effects and therapeutic effects of Interferential therapy.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Neural mobilization.
2. Principles of aerobic exercises.
3. Parameters of therapeutic electrical currents.
4. Interpretation of Strength Duration curve.
5. Anthropometric measurement.
6. Principles and application of Mulligan's Mobilisation.
7. Exercise induced muscle soreness Prevention and Management.
8. Physiology of tissue repair and healing.
9. Role of excitability test.
10. Motor control.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LP 154]

OCTOBER 2019

Sub. Code: 8154

**MPT DEGREE EXAMINATION**  
**(Common to all Branches)**  
**(Regulations for the candidates admitted from 2018-2019 onwards)**  
**FIRST YEAR**  
**PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code : 278154*

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Discuss the aquatic therapy physical law, physiological effects, advantage and disadvantage and describe its clinical application for Alzheimer's disease.
2. Describe in detail the construction and working of valve diathermy circuit elaborate on biophysical, biochemical, therapeutic effects and methods of application of Long wave Diathermy.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Traditional electrophysiological techniques.
2. Role of physiotherapeutic in psychosomatic pain.
3. Electro Neuro Myography.
4. Di-dynamic Currents.
5. Application of LASER in diabetic ulcer.
6. Electrical Properties of tissues.
7. Biomechanical principles in Manual therapy.
8. Principles of evidence based clinical application of electro therapeutics.
9. Positional release techniques.
10. Articular Neurology.

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THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LQ 154]

NOVEMBER 2020  
(MAY 2020 SESSION)

Sub. Code: 8154

**MPT DEGREE EXAMINATION**  
(Common to all Branches)  
(New Regulations for the candidates admitted from 2018-2019 onwards)

**FIRST YEAR**  
**PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code : 278154*

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Describe in detail the principles, biomechanics, normal responses, sensitizing test, application, methods, indications and variations of the Base tests of General Tension Testing.
2. Write in detail about Phases of Healing process & the guidelines, indications, contraindications for using Therapeutic modalities.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Theories of Pain.
2. Mulligan's Mobilization with movements.
3. Principles and types of Aerobic exercises.
4. Jump sign.
5. Variations of Muscle Energy Technique.
6. Perturbations in standing posture.
7. Somato Sensory evoked Potentials & its uses.
8. Re-education of Pelvic floor muscle using Faradic current.
9. Mobilization with Impulse and without Impulse.
10. Differentiate H reflex & F Wave.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPT 0321]**

**MARCH 2021  
(OCTOBER 2020 SESSION)**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION  
(Common to all Branches)  
FIRST YEAR ( INCLUDING ACADEMIC YEAR 2019-2020)  
PAPER II – PHYSIOTHERAPEUTICS  
*Q.P. Code : 278154***

**Time : Three hours**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain in detail about Mckenzie technique.
2. Discuss the indications, contraindications, method of application and effects of Shock wave therapy.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Kinesiological electromyography
2. Myofascial release technique
3. Prevention of muscle atrophy
4. Bedside pulmonary function test
5. Evaluation of aging
6. Disablement model
7. Effects of Ultrasound
8. Swiss ball
9. Pulsed electromagnetic field therapy
10. Piriformis stretching

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[MPT 0921]

**SEPTEMBER 2021  
(MAY 2021 EXAM SESSION)**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION**

**FIRST YEAR - (Regulations for the candidates admitted from 2018-2019 except 2020-2021)**

**PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code : 278154*

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Describe various electrotherapeutic modalities used for the acceleration of wound healing.
2. Describe the different type of biofeedback sources used in physical rehabilitation practice. Add a note on role EMG in shoulder dysfunction.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Skin fold measure.
2. Stretch reflex.
3. Exercises of osteoporosis.
4. Visual and auditory feedback.
5. Vector sweep in interferential therapy.
6. Centralization and peripheralization.
7. Hyper mobility.
8. Strength duration curve.
9. Jump sign.
10. H-reflex.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[MPT 0222]

**FEBRUARY 2022  
(OCTOBER 2021 EXAM SESSION)**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION  
FIRST YEAR - (Regulations for the candidates admitted from 2018-2019)  
PAPER II – PHYSIOTHERAPEUTICS  
*Q.P. Code : 278154***

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Describe in detail about the Mckenzie technique and explain the principles, assessment, method of application in various conditions.
2. Write in detail about the principles of nerve conduction study and EMG with application methods in various conditions and clinical findings.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Motor control assessment.
2. Cryotherapy.
3. Wound healing.
4. Russian currents.
5. Prevention of atrophy.
6. Concave and convex rule.
7. Trigger point release.
8. Exercise ECG.
9. Magneto therapy.
10. Aquatic exercises.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[MPT 0622]

**JUNE 2022  
(MAY 2022 EXAM SESSION)**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION  
FIRST YEAR - (Regulations for the candidates admitted from 2018-2019)  
PAPER II – PHYSIOTHERAPEUTICS  
*Q.P. Code : 278154***

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Discuss the aquatic therapy, its physical law, physiological effects, advantage and disadvantage. Describe its clinical application.
2. Explain the physical parameters, physiological effects and contraindications for Faradic current stimulation. Enumerate the method of reeducation of pelvic floor muscles using Faradic current.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Resisted exercises in hydrotherapy.
2. Body Mass Index.
3. End Feel.
4. Pulmonary Function Testing and its interpretations.
5. Factors affecting nerve conduction test.
6. Hydro collator packs.
7. Effects of cold packs on spasticity.
8. Shock wave diathermy.
9. Graded oscillation technique.
10. EMG changes in peripheral neuropathies.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

[MPT 0223]

**FEBRUARY 2023  
(OCTOBER 2022 EXAM SESSION)**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION  
FIRST YEAR - (Regulations for the candidates admitted from the academic year 2018-2019)  
PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code : 278154*

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Write in details about the principles of Management of Mechanical dysfunction
2. Enumerate about the physical disability evaluation and disability diagnosis.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Benefits of training with functional device.
2. Lymphatic manipulations.
3. Principles and indication of Rebox current.
4. Electrotherapeutics for pelvic floor dysfunction.
5. Types of diadynamic current.
6. Automatic postural response.
7. Stretching technique for Iliotibial Band Tightness.
8. Nerve conduction study for Radial nerve palsy.
9. Whirlpool therapy.
10. Role of proprioception in balance.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPT 0523]**

**MAY 2023**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION**

**FIRST YEAR - (Regulations for the candidates admitted from the academic year 2018-2019)**

**PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code: 278154*

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Discuss Physical disability evaluation and its diagnosis.
2. Discuss in detail on Trigger point release.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Concave and Convex Rule.
2. Reverse natural apophyseal glides.
3. Exercise ECG testing.
4. Maitland manipulation.
5. Visual and auditory feedback.
6. Stress incontinence.
7. Gait analysis.
8. Electrical properties of tissue.
9. Electro Neuro Myography.
10. Principles of thermal agents.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPT 1223]**

**DECEMBER 2023  
(OCTOBER 2023 EXAM SESSION)**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION**

**FIRST YEAR - (Regulations for the candidates admitted from the academic year 2018-2019)  
PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code: 278154*

**Time : Three hours**

**Answer ALL Questions**

**Maximum : 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Discuss in detail about Mckenzie technique.
2. Define Resisted exercise. Describe in detail the types, techniques indication and contra indication for resisted exercise.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Properties of fast and slow pain fibres.
2. Evidence based clinical application in pain management of electrotherapeutic modalities.
3. Muscle spasm.
4. Pulsed short wave diathermy.
5. Normal EMG.
6. Movement disorders.
7. Muscle energy technique.
8. Manipulation for Lymphodema.
9. Osteokinematic and Arthrokinematic movements.
10. Maitland grades of mobilization.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPT 0524]**

**MAY 2024**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION**

**FIRST YEAR - (Regulations for the candidates admitted from the academic year 2018-2019)**

**PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code: 278154*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain in detail about the Pain Gate Theory. Add a note on applications of TENS for pain Relief.
2. Discuss in detail about Maitland's Mobilization Technique.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Training with functional devices.
2. Trigger point release.
3. Extracorporeal Shock Wave Therapy.
4. Physical disability evaluation and diagnosis.
5. Differentiate Osteokinematic and Arthrokinematic movements.
6. Red flags in Manipulation.
7. Insertional activity of EMG.
8. Principles of sensory nerve conduction study.
9. Common geriatric syndromes.
10. Tapping Techniques.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPT 1024]**

**OCTOBER 2024**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION**

**FIRST YEAR - (Regulations for the candidates admitted from the academic year 2018-2019)**

**PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code: 278154*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Write in detail about the principles of nerve conduction study and EMG with application methods in various conditions and clinical findings.
2. Discuss in detail about Mckenzie technique.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Motor control.
2. Gait analysis.
3. Somato sensory evoked potentials and its uses.
4. Exercises induced muscle soreness.
5. Cryo therapy.
6. Resisted exercise in Hydrotherapy.
7. Walking aids.
8. Centralization and peripheralization.
9. Shock wave diathermy.
10. Specificity and pattern theory.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPT 0525]**

**MAY 2025**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION  
FIRST YEAR - (Candidates admitted 2018-2019 onwards)  
PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code: 278154*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Explain the arthrokinematics of the shoulder joint. Write about the Neural mobilization technique for Ulnar Nerve.
2. Define Traction. Classify its types on Spinal Traction. Describe its indications, Contraindications and Therapeutic effects and explain the procedure for mechanical traction for Lumbar spine.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Prevention of muscle atrophy.
2. Nerve conduction velocity studies and its uses.
3. Lower Crossed syndrome.
4. Principles of motor nerve conduction study.
5. H reflex.
6. Neurological investigation tools and its uses.
7. Properties of nerve fibre.
8. Evaluation of balance with respect to aging.
9. Pulmonary function tests.
10. Principles and application of Mulligan's Mobilization.

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**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[MPT 1025]**

**OCTOBER 2025**

**Sub. Code: 8154**

**MPT DEGREE EXAMINATION  
FIRST YEAR - (Candidates admitted 2018-2019 onwards)  
PAPER II – PHYSIOTHERAPEUTICS**

*Q.P. Code: 278154*

**Time: Three hours**

**Answer ALL Questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Describe various electrotherapeutic modalities used for the acceleration of wound healing.
2. Write in detail about the principles of nerve conduction study and EMG with application methods in various conditions and clinical findings.

**II. Write notes on:**

**(10 x 6 = 60)**

1. Pain Evaluation.
2. Evidence based clinical application of stretching.
3. Aquatic exercises.
4. Role of proprioception in balance.
5. Barrier concepts in manual therapy.
6. Properties of fast and slow pain fibers.
7. Kinesiological electromyography.
8. Combination therapy.
9. Trampoline.
10. Posture.

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