

March 2009

[KU 181]

Sub. Code: 2075

M.D. DEGREE EXAMINATION

Branch XIX – PHYSICAL MEDICINE AND REHABILITATION

Paper II – (For candidates admitted from 2004-2005 to 2007-2008)

**PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY,
PAEDIATRICS, RADIOLOGY GENETICS, INDUSTRIAL
INJURIES, SPORTS INJURIES, ELECTRO DIAGNOSIS,
MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR
DISORDERS)**

Q.P. Code : 202075

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary

Answer ALL questions

I. Essay questions :

(2 x 20 = 40)

1. Discuss bladder rehabilitation in a 35 year old male with T12 paraplegia of 6 months duration.
2. Give a brief account of anatomy and biomechanics of cervical spine. Discuss the treatment options for cervical IVDP.

II. Write short notes on :

(10 x 6 = 60)

1. Hydrotherapy.
2. Single fibre EMG.
3. Diabetes and exercise.
4. Complex Regional pain syndrome.
5. Overuse injury.
6. Architectural barriers.
7. Erb's palsy.
8. Management of stress incontinence in women.
9. Functional Independence measure.
10. Instrumental activities of daily living.

MAY 2011

[KY 181]

Sub. Code: 2075

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

PHYSICAL MEDICINE AND REHABILITATION – I

**(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY,
PAEDIATRICS, RADIOLOGY, GENETICS, INDUSTRIAL INJURIES,
SPORTS INJURIES, ELECTRO DIAGNOSIS, MUSCULOSKELETAL
DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P. Code : 202075

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages (Max.)	Time (Max.)	Marks (Max.)
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- | | | | |
|--|----|----|----|
| 1. Discuss the Etiopathology, clinical features, radiological findings and management of a young male patient suffering from Ankylosing spondylitis. | 11 | 35 | 15 |
| 2. Discuss the Rehabilitation management of a 60 year old male patient with Left hemiplegia with hemineglect. | 11 | 35 | 15 |

II. Write notes on :

- | | | | |
|--|---|----|---|
| 1. Rheumatoid hand deformities. | 4 | 10 | 7 |
| 2. Abnormal spontaneous potentials. | 4 | 10 | 7 |
| 3. Kinetic chain exercises. | 4 | 10 | 7 |
| 4. Complications of Neurogenic bowel. | 4 | 10 | 7 |
| 5. Radiological assessment of club feet. | 4 | 10 | 7 |
| 6. Parsonage Turner syndrome. | 4 | 10 | 7 |
| 7. Post polio syndrome. | 4 | 10 | 7 |
| 8. Neuroendocrine abnormalities after TBI. | 4 | 10 | 7 |
| 9. Electrodiagnostic findings in muscular dystrophy. | 4 | 10 | 7 |
| 10. PLISSIT MODEL in sexual rehabilitation. | 4 | 10 | 7 |

April 2012

[LA 181]

Sub. Code: 2075

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

**PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY,
PAEDIATRICS, RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS
INJURIES, ELECTRO DIAGNOSIS, MUSCULOSKELETAL DISORDERS,
NEUROMUSCULAR DISORDERS)**

Q.P. Code : 202075

Time : 3 hours (180 Min)

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

**Pages Time Marks
(Max.) (Max.) (Max.)**

1. Discuss the rehabilitation management of a 3 year old girl with lumbar meningocele.
2. Discuss the clinical presentation, electro diagnostic findings and management of a 30year old shop-keeper with traumatic brachial plexus injury at level of the upper trunk.

16	35	15
16	35	15

II. Write notes on :

1. Explain Implicit/Explicit memory loss.
2. Classify Congenital Skeletal Limb Deficiency.
3. Clinical presentation in DISH (Diffuse Idiopathic Skeletal Hyperostosis).
4. Management of neurogenic claudication.
5. Role of Cryotherapy in Rehabilitation.
6. Predisposing factors and management in Adhesive Capsulitis.
7. Radiological differentiation between Osteoarthritis and Rheumatoid arthritis of the knee.
8. Clinical assessment in Persistent Vegetative State.
9. Management of Carpal Tunnel Syndrome.
10. Management of a Grade IV sacral pressure sore in a Paraplegic.

4	10	7
4	10	7
4	10	7
4	10	7
4	10	7
4	10	7
4	10	7
4	10	7
4	10	7
4	10	7

**M.D. DEGREE EXAMINATION
BRANCH XIX – PHYSICAL MEDICINE & REHABILITATION**

**PHYSICAL MEDICINE & REHABILITATION - I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY,
PAEDIATRICS, RADIOLOGY, GENETICS, INDUSTRIAL INJURIES,
SPORTS INJURIES, ELECTRODIAGNOSIS, MUSCULOSKELETAL
DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P.Code: 202075

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Discuss the clinical and diagnostic approach to a patient with suspected myopathy. Outline the principles of rehabilitation of a 5 year old child with Duchenne muscular dystrophy.
2. Discuss the physiology and pathophysiology of pain. Write a note on the psychological issues related to chronic pain.

II. Write notes on:

(10X7=70)

1. Common sites of nerve entrapment in the upper limbs
2. Describe the issues of aging with cerebral palsy
3. Intracavernous penile injections for restoration of erectile dysfunction in spinal cord injury
4. Abnormal spontaneous potentials
5. Describe the F wave and its clinical significance
6. Mechanism, uses and contraindications of Interferential current therapy
7. Outline the principles of neurofacilitation techniques
8. Outline the therapy approaches in cerebral palsy
9. Upper urinary tract evaluation in spinal cord injury
10. What are the clinical applications of botulinum toxin?

[LD 181]

OCTOBER 2013

Sub. Code: 2075

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE & REHABILITATION

PHYSICAL MEDICINE & REHABILITATION - I

**(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY,
PAEDIATRICS, RADIOLOGY, GENETICS, INDUSTRIAL INJURIES,
SPORTS INJURIES, ELECTRODIAGNOSIS, MUSCULOSKELETAL
DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P.Code: 202075

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the etiology, clinical features, radiological findings and management of thoracic level scoliosis in a 12 year old girl. Write a note on the biomechanical principles employed in the use of orthosis to halt curve progression.
2. Discuss the physiologic mechanisms accounting for spasticity.
Discuss the pharmacological treatment of spasticity.

II. Write notes on:

(10 x 7 = 70)

1. Describe the Blink reflex and its clinical significance.
2. Discuss the use of oral medications to treat erectile dysfunction.
3. Explain the Ranchos Los Amigos scale of cognitive function.
4. Describe the radiological changes in osteoarthritis knee.
5. Write a note on Plyometric exercises .
6. Imaging for lumbar intervertebral disc prolapse.
7. Discuss the De Lorme protocol.
8. Discuss the use of ultrasound in musculoskeletal conditions.
9. Briefly describe the electrophysiological diagnosis of lumbosacral Radiculopathy.
10. Write a note on the structure of the bladder-receptors, neurotransmitters and innervation.

(LE 181)

APRIL 2014

Sub. Code:2075

M.D. DEGREE EXAMINATION

BRANCH XIX - PHYSICAL MEDICINE & REHABILITATION

PHYSICAL MEDICINE & REHABILITATION - I

**(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY,
PAEDIATRICS, RADIOLOGY, GENETICS, INDUSTRIAL INJURIES,
SPORTS INJURIES, ELECTRO DIAGNOSIS, MUSCULOSKELETAL
DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P.Code: 202075

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Discuss the formation of lumbosacral plexus. Discuss the diagnostic features of plexopathy Radiculopathy sand peripheral neuropathy.
2. Rehabilitation of a diplegic cerebral palsy child.

II. Write notes on:

(10X7=70)

1. Genetic counselling.
2. Sympathetic block for pain relief.
3. Fibromyalgia.
4. Rotator cuff injury.
5. MRI features of hypoxic encephalopathy.
6. Congenital talipes equino varus.
7. Hipdisarticulation prosthesis.
8. Congenital torticollis.
9. Kinetic chain exercise.
10. Dystrophin.

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE & REHABILITATION

PAPER II – PHYSICAL MEDICINE & REHABILITATION - I

**(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY,
PAEDIATRICS, RADIOLOGY, GENETICS, INDUSTRIAL INJURIES,
SPORTS INJURIES, ELECTRO DIAGNOSIS, MUSCULOSKELETAL
DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P.Code: 202075

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the management of a 30 year old male with above knee amputation following crush injury.
2. Discuss the investigations and management of a child with Duchenne muscular dystrophy.

II. Write notes on:

(10 x 7 = 70)

1. Wernicke's Aphasia.
2. Pulmonary function test.
3. Whiplash injury.
4. Avascular necrosis of femoral head.
5. Detrusor hyper reflexia.
6. Terminal devices for upper limb prosthesis.
7. Post polio syndrome.
8. Dupuytren's contracture.
9. Thoracic inlet syndrome.
10. Extra articular manifestations of rheumatoid arthritis.

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)

Q.P.Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss the management of a 45 year female presenting with polyarthritis.
2. Discuss in detail about the principles in Rehabilitation of Sport Injuries.

II. Write notes on: **(10 x 7 = 70)**

1. Club foot.
2. Heterotopic ossification.
3. Asymmetric tonic neck reflexes.
4. Pseudogout.
5. Vitamin D deficiency.
6. Low temperature thermoplastics.
7. Factor VIII.
8. Neural tube defects.
9. Spondylolisthesis.
10. Denervation potentials.

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

**PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P.Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the medical management and rehabilitation of a young house wife diagnosed to have rheumatoid arthritis involving multiple joints?
2. Discuss the evaluation and treatment options for sexual dysfunction in a 25 year old married male with T6 complete spinal cord injury?

II. Write notes on:

(10 x 7 = 70)

1. Investigations for dysphagia in stroke.
2. EMG findings in myopathy.
3. Neurobehavioral consequences of traumatic brain injury.
4. Complications of neurogenic bowel.
5. Role of cold therapy in sports injuries.
6. Indications, procedure and precautions of doing stellate ganglion block.
7. Effects of ultrasonic waves on tissues.
8. Targeted musculoskeletal ultrasound.
9. Issues of ageing with cerebral palsy.
10. Selective serotonin reuptake inhibitors.

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

**PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P.Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: (2 x 15 = 30)

1. Discuss the principles of functional electrical stimulation and its clinical applications in the rehabilitation of a patient with stroke.
2. Discuss the management of a patient with tetraplegia with C8 ASIA C neurological level.

II. Write notes on: (10 x 7 = 70)

1. Interferential therapy.
2. Contra indications of cervical traction.
3. Foot deformities in myelomeningocele.
4. F – wave.
5. International classification of functioning.
6. X linked disorders.
7. Game keepers thumb.
8. Compartment syndrome.
9. Anabolic steroids.
10. Pancoast tumour.

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)

Q.P. Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the causes of Anaesthetic foot. Describe the management of non-healing foot ulcer in a person with diabetes mellitus.
2. Discuss the clinical and diagnostic approach to a patient with suspected myopathy. Outline the principles of rehabilitation of a 5 year old child with Duchenne Muscular Dystrophy.

II. Write notes on:

(10 x 7 = 70)

1. Sexuality issues in women with disability.
2. Management of a child with autism.
3. Facio-scapulo-humeral muscular dystrophy.
4. Late effects of polio. Add a note on post-polio syndrome.
5. Abnormal spontaneous potentials.
6. Radio frequency neurolysis of facet joint.
7. Myelomeningocele in adults.
8. Sensory nerve action potentials.
9. Radiological assessment of club foot.
10. Radionuclide bone scintigraphy.

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)

Q.P. Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the nerve supply of urinary bladder. Discuss in detail about the pathophysiology and management of a neurogenic bladder in a spinal cord injury patient.
2. Differentiate between spasticity and rigidity. Discuss in detail about the assessment and management of spasticity in a hemiplegic patient.

II. Write notes on:

(10 x 7 = 70)

1. Electrical muscle stimulation in Bell's palsy
2. Crouch gait in CP and its management
3. Ergonomics
4. H Reflex
5. Cumulative trauma disorders.
6. Motor neuron disease
7. Radiological assessment of OA knee and its clinical implications
8. Management of phantom limb pain
9. Fibromyalgia
10. Electrodiagnostic evaluation of carpal tunnel syndrome

[MD 0721]

**JULY 2021
(MAY 2021 SESSION)**

Sub. Code: 2075

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

**PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P. Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss bladder rehabilitation in a 35 year old Male with T12 paraplegia of 6 months duration.
2. Discuss the etiopathogenesis, clinical features, radiological findings and management of a Young male patient suffering from ankylosing spondylitis.

II. Write notes on: **(10 x 7 = 70)**

1. Genetic counselling.
2. Sympathetic block in pain relief.
3. Late responses in NCS.
4. Instrumental activities of daily living.
5. Cryotherapy in rehabilitation.
6. Functional Independence Measure (FIM)
7. Architectural barrier.
8. Detrusor hyperreflexia.
9. Fibular hemimelia.
10. Plantar fasciitis.

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

[MD 0522]

MAY 2022

Sub. Code: 2075

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)

Q.P. Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the pharmacological management and rehabilitation measures for a 30 year old house wife diagnosed to have rheumatoid arthritis involving multiple joints?
2. How till you rehabilitate an active sports person who had knee injury with IDK?

II. Write notes on:

(10 x 7 = 70)

1. Progressive Resistance exercises.
2. Infrared therapy.
3. Paraffin bath.
4. Electrodiagnostic findings in C6 radiculopathy.
5. Diagnosis and management of deep vein thrombosis.
6. Hereditary spastic paraparesis.
7. Clinical features and diagnosis of anterior horn cell disease.
8. Gross Motor Functional Classification of cerebral palsy.
9. Radiological findings in rickets.
10. Modified Barthel Index.

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

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 2075

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

**PAPER II – PHYSICAL MEDICINE AND REHABILITATION – I
(INCLUDING PHYSIOTHERAPY, OCCUPATIONAL THERAPY, PAEDIATRICS,
RADIOLOGY, GENETICS, INDUSTRIAL INJURIES, SPORTS INJURIES, ELECTRO
DIAGNOSIS, MUSCULOSKELETAL DISORDERS, NEUROMUSCULAR DISORDERS)**

Q.P. Code: 202075

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss risk factors associated with and conditions causing low back pain in an active sports and games person. Elaborate on stages of management and conditioning. Discuss core muscle strengthening.
2. Discuss Rehabilitation of a 5-year-old CP diplegic child towards his or her Adulthood.

II. Write notes on: **(10 x 7 = 70)**

1. Crutch Muscles.
2. Muscles Strengthening Training Program.
3. Upper extremity Theraband exercise.
4. Tenodesis grasp.
5. EMG features of Neuropathy and Myopathy.
6. OA knee.
7. De Quervain – Tenosynovitis.
8. Autosomal disease.
9. Radiographic features of Charcot's foot.
10. Facioscapulohumeral muscular dystrophy.
