

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

[MD 0524]

MAY 2024

Sub. Code: 4053

M.D. DEGREE EXAMINATION

BRANCH XIX – PHYSICAL MEDICINE AND REHABILITATION

**PAPER I – BASIC SCIENCES AND BASIC CONCEPTS AS APPLIED TO
PHYSICAL MEDICINE AND REHABILITATION**

Q.P. Code: 204053

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY (4 x 5 = 20)

1. Internal capsule.
2. Carpel tunnel.
3. Ligaments of Knee joints.
4. Blood supply of Spinal cord.

II. PHYSIOLOGY (4 x 5 = 20)

1. Regulation of Respiration.
2. Oxygen dissociation.
3. Effect of exercise on cardiovascular system.
4. Physiology of Normal Swallowing.

III. BIOCHEMISTRY (3 x 5 = 15)

1. Proteoglycans.
2. Metabolic effects of Insulin.
3. What is C Reactive protein? Mention its clinical utilities.

IV. PHARMACOLOGY (3 x 5 = 15)

1. Enumerate Drugs for Osteoporosis.
2. Calcitonin.
3. Anti Parkinsonian agents.

V. PATHOLOGY (3 x 5 = 15)

1. Pathophysiology of Autonomic dysreflexia.
2. Pathophysiology of Atherosclerosis.
3. Buerger's diseases.

VI. MICROBIOLOGY (3 x 5 = 15)

1. Asymptomatic bacteraemia.
2. Dengue fever.
3. Rheumatoid factor.

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

[MD 1224]

**DECEMBER 2024
(OCTOBER 2024 EXAM SESSION)**

Sub. Code: 4053

M.D. DEGREE EXAMINATION

PHYSICAL MEDICINE AND REHABILITATION

**PAPER I – BASIC SCIENCES AND BASIC CONCEPTS AS APPLIED TO
PHYSICAL MEDICINE AND REHABILITATION**

Q.P. Code: 204053

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY (4 x 5 = 20)

1. Knee joint.
2. Supraspinatus muscle.
3. Ulnar nerve at elbow.
4. Abducens nerve.

II. PHYSIOLOGY (4 x 5 = 20)

1. Mitochondria.
2. Blood-brain barrier.
3. Bleeding time.
4. Astrocytes.

III. BIOCHEMISTRY (3 x 5 = 15)

1. Gastric inhibitory peptide.
2. Acetyl coenzyme A.
3. Triglycerides.

IV. PHARMACOLOGY (3 x 5 = 15)

1. Amantadine.
2. Baclofen.
3. Sitagliptin.

V. PATHOLOGY (3 x 5 = 15)

1. Hallux valgus.
2. Trophic ulcer.
3. Haemorrhoids.

VI. MICROBIOLOGY (3 x 5 = 15)

1. Vibrio cholerae.
2. Klebsiella.
3. Ancylostoma duodenale.

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

[MD 0525]

MAY 2025

Sub. Code: 4053

M.D. DEGREE EXAMINATION

PHYSICAL MEDICINE AND REHABILITATION

**PAPER I – BASIC SCIENCES AND BASIC CONCEPTS AS APPLIED TO
PHYSICAL MEDICINE AND REHABILITATION**

Q.P. Code: 204053

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY

(4 x 5 = 20)

1. Hip joint.
2. Ilio-Psoas muscle.
3. Median nerve at wrist and hand.
4. Optic tract and Radiation.

II. PHYSIOLOGY

(4 x 5 = 20)

1. Sarcoplasm.
2. Coronary blood flow.
3. Coagulation cascade.
4. Schwann cells.

III. BIOCHEMISTRY

(3 x 5 = 15)

1. Glucagon-like peptide-1.
2. Fatty acids.
3. Prostaglandins.

IV. PHARMACOLOGY

(3 x 5 = 15)

1. Indomethacin.
2. Aminoglycosides.
3. Ketoconazole.

V. PATHOLOGY

(3 x 5 = 15)

1. Heterotopic ossification.
2. Aphthous ulcer.
3. Osteogenesis imperfecta.

VI. MICROBIOLOGY

(3 x 5 = 15)

1. Varicella-zoster.
2. Clostridium tetani.
3. Measles.

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

[MD 1025]

OCTOBER 2025

Sub. Code: 4053

M.D. DEGREE EXAMINATION

PHYSICAL MEDICINE AND REHABILITATION

**PAPER I – BASIC SCIENCES AND BASIC CONCEPTS AS APPLIED TO
PHYSICAL MEDICINE AND REHABILITATION**

Q.P. Code: 204053

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY (4 x 5 = 20)

1. Glenohumeral joint.
2. Piriformis muscle.
3. Ulnar nerve at the cubital tunnel.
4. Visual cortex and optic radiation.

II. PHYSIOLOGY (4 x 5 = 20)

1. Excitation-contraction coupling in skeletal muscle.
2. Micturition Reflex.
3. Intrinsic coagulation pathway.
4. Saltatory conduction.

III. BIOCHEMISTRY (3 x 5 = 15)

1. Creatine Phosphokinase.
2. Omega-3 fatty acids.
3. Nitric oxide.

IV. PHARMACOLOGY (3 x 5 = 15)

1. Baclofen.
2. Bisphosphonates.
3. Citicoline.

V. PATHOLOGY (3 x 5 = 15)

1. Heterotopic ossification.
2. Aphthous stomatitis.
3. Virchow triad.

VI. MICROBIOLOGY (3 x 5 = 15)

1. Herpes simplex virus.
2. Pseudomonas bacteria.
3. Antibigram.
