

August 2011

[KZ 6256]

Sub. Code : 6256

BACHELOR OF PHYSIOTHERAPY EXAMINATION

SECOND YEAR

**Paper II – BIOMECHANICS, APPLIED ANATOMY AND
KINESIOLOGY**

Q.P. Code : 746256

Time : Three hours

Maximum : 100 marks

ANSWER ALL QUESTIONS

I. LONG ESSAYS

(2X20=40)

1. Describe in detail about Newton's laws of motion.
2. Discuss the biomechanical analysis of running gait versus walking.

II. SHORT NOTES

(8X5=40)

1. Calculation of centre of gravity of the body.
2. Muscular weakness and atrophy
3. Closed chain motion of the elbow.
4. Functional position of the wrist.
5. Analyze placing the hand behind the head.
6. Balancing of the head and vertebral column.
7. Load-deformation curve.
8. Loading of the foot.

III. SHORT ANSWERS

(10X2=20)

1. Ballistic movement.
2. Articularis genu.
3. Postural set.
4. Corset muscle.
5. Tarsal canal.
6. Common hip axis.
7. Kinesthesia and proprioception.
8. Pelvic balance.
9. Gluteus medius limp.
10. Patellar plicae.

February 2012

[LA 6256]

Sub. Code: 6256

BACHELOR OF PHYSIOTHERAPY EXAMINATION

SECOND YEAR

**PAPER II – BIOMECHANICS, APPLIED ANATOMY AND
KINESIOLOGY**

Q.P. Code: 746256

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2X20=40)

1. Explain the structure configuration of hip joint in relation to weight bearing in unilateral and bilateral stance along with factors contributing for its stability.
2. Describe the normal curves of vertebral column and discuss the factors responsible for its mobility and stability.

II. Write notes on:

(8X5=40)

1. Parameters of gait
2. Scapulo humeral rhythm
3. Determinants of gait
4. Bursae around knee
5. Talocalaneo navicular joint
6. Optimal posture
7. Reverse action
8. Pivot joint

III. Short Answers:

(10X2=20)

1. Synergist
2. Angular Velocity
3. Concentric Exercise
4. Sacral vertebrae
5. Acromic clavicular joint
6. Lumbricals
7. Lordosis
8. Line of gravity
9. Second class lever
10. Law of inertia

[LB 6256]

AUGUST 2012

Sub. Code: 6256

**SECOND YEAR BPT EXAM
PAPER II – BIOMECHANICS, APPLIED ANATOMY
AND KINESIOLOGY**

Q.P. Code : 746256

Time: Three Hours

Maximum: 100 marks

(180 Min) Answer ALL questions in the same order.

I. Elaborate on:

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

- | | | | |
|--|----|----|----|
| 1. Analyze posture and explain the postural deviations. | 19 | 33 | 20 |
| 2. a. Enumerate the effect of limitation of hip joint motion on lumbar spine.
b. Compare architectural characteristics on functions of quadriceps versus hamstring muscles. | 19 | 33 | 20 |

II. Write notes on:

- | | | | |
|--|---|---|---|
| 1. Composition of the connective tissue. | 3 | 8 | 5 |
| 2. Axial rotation in the knee joint. | 3 | 8 | 5 |
| 3. Ways to reduce forces acting on the femoral head. | 3 | 8 | 5 |
| 4. Rotator cuff stabilization. | 3 | 8 | 5 |
| 5. Loading of the foot. | 3 | 8 | 5 |
| 6. Excitation-contraction coupling. | 3 | 8 | 5 |
| 7. Compare action of anconeus and triceps. | 3 | 8 | 5 |
| 8. Cross-eyed patella. | 3 | 8 | 5 |

III. Short Answers:

- | | | | |
|-----------------------------------|---|---|---|
| 1. Point of application of force. | 1 | 5 | 2 |
| 2. Junctura tendinae. | 1 | 5 | 2 |
| 3. Scaption. | 1 | 5 | 2 |
| 4. Isoinertial exercise. | 1 | 5 | 2 |
| 5. Perturbation. | 1 | 5 | 2 |
| 6. Quadriceps angle. | 1 | 5 | 2 |
| 7. Convex-concave principle. | 1 | 5 | 2 |
| 8. Sustentaculum tali. | 1 | 5 | 2 |
| 9. Volar wrist musculature. | 1 | 5 | 2 |
| 10. Vincula tendinum. | 1 | 5 | 2 |

[LC 6256]

FEBRUARY 2013
SECOND YEAR BPT EXAM
PAPER II – BIOMECHANICS, APPLIED ANATOMY AND
KINESIOLOGY

Sub. Code: 6256

Q.P. Code: 746256

**Time: Three Hours
(180 Min)**

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Describe the tissue present in human joints and mention general effects of injury and disease.
2. Explain about effect of injury and developmental defects of vertebral column.

II.Short Notes:

(8X 5=40)

1. Structures limiting motion in supination and pronation
2. Cumulative strain in tendons
3. Clavicular contribution to elevation of arm
4. Effects of immobilization in a lengthened versus a shortened position
5. Compensatory posture
6. Index of Insall and Salviti
7. Joint receptors
8. Triceps surae

III.Short Answers:

(10X2=20)

1. Reverse action
2. Bunnell's sign
3. Pes Anserinus
4. Lister's tubercle
5. Dowager's hump
6. Sternoclavicular disk
7. Nutation
8. Divergent muscle pull
9. Voluntary control
10. Hysteresis.

[LD 6256]

AUGUST 2013

Sub. Code: 6256

SECOND YEAR BPT EXAM
PAPER II – BIOMECHANICS, APPLIED ANATOMY AND
KINESIOLOGY
Q.P. Code : 746256

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Discuss in detail the articulating structure, osteokinematics and arthrokinematics of the tibio-femoral joint. Add a note on pathomechanics of knee joint
2. Explain the general properties of connective tissue

II. Write Notes on:

(8X5=40)

1. Codman's paradox
2. Passive insufficiency
3. Triangular fibrocartilage complex (TFCC)
4. Pelvic tilts
5. Determinants of gait
6. Pronation twist of tarsometatarsal joint
7. Lordosis and Kyphosis
8. Power grip

III. Short Answer:

(10X2=20)

1. Cadence
2. Agonists and Antagonists
3. Waddling gait
4. Volar plate
5. Pars interarticularis
6. Subacromial space
7. Functional position of the hand
8. Close – packed position
9. Carrying angle
10. Angulation of the femur

[LE 6256]

FEBRUARY 2014

Sub. Code: 6256

SECOND YEAR BPT EXAM

PAPER II – BIOMECHANICS, APPLIED ANATOMY AND
KINESIOLOGY

Q.P. Code : 746256

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. What is Prehension? Explain power grip and precision handling in detail with examples.
2. Explain the structure and function of Plantar arches in detail.

II. Write notes on:

(8X5=40)

1. Explain about Pes planus
2. Phases of Gait cycle
3. Explain patella as an Anatomic Pulley
4. Stress and strain
5. Explain about the function of cervical region
6. Advantages and disadvantages of Coracoacromial arch
7. Explain Tennis Elbow
8. Differentiate Coxa valga from Coxa vara

III. Short Answers:

(10X2=20)

1. What is Cadence?
2. What is Calcaneal gait?
3. Define Torque
4. What is the instantaneous axis of rotation?
5. What is a motor unit?
6. Attachment of thoracolumbar fascia
7. What is glenoid labrum?
8. What is carrying angle?
9. Name the ligaments of Hip joint
10. What is patella baja?

[LF 6256]

AUGUST 2014

Sub. Code: 6256

**SECOND YEAR/III & IV SEMESTER BPT EXAM
PAPER II – BIOMECHANICS, APPLIED ANATOMY AND
KINESIOLOGY**

Q.P. Code : 746256

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. What is Scapulohumeral rhythm? Explain the phases of scapulohumeral rhythm in detail with neat diagram.
2. Describe why using a cane on the side opposite to hip joint pain or weakness is more effective than using the cane on the same side.

II. Write Notes on:

(8X5=40)

1. What is “Q” angle of knee joint? How is it measured and what implications does it have for patellofemoral problems?
2. Explain the coupled movements of subtalar pronation and supination
3. Fixed support synergies
4. Explain stair gait cycle.
5. Explain the factors affecting muscle function
6. Explain the ligaments of Radioulnar joints
7. Explain about the extensor mechanism of wrist and hand
8. Explain Newton’s law of inertia with example.

III. Short Answer:

(10X2=20)

1. What is Scaption?
2. Attachment of medial collateral ligament of knee joint
3. State the ligaments of Talonavicular joint
4. What is the normal postural sway?
5. Define moment arm
6. Give example for a trochoid joint
7. What are zygapophyseal joints?
8. What is lumbosacral angle?
9. What are the pelvic floor muscles?
10. What is Nutation and counternutation?

[LG 6256]

FEBRUARY 2015

Sub. Code: 6256

**SECOND YEAR / III & IV SEMESTER BPT EXAM
PAPER II – BIOMECHANICS, APPLIED ANATOMY AND KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe in detail about the articulating structures kinematics of Tibiofemoral joint and related Pathomechnics.
2. Pathomechanics of gait.

II. Write notes on:

(8 x 5 = 40)

1. Osteokinematics of hip joint
2. Winging of scapula
3. Locking and Unlocking of knee
4. Tensile forces
5. Centre of gravity and Line of gravity
6. Functions of hand
7. Talocalcaneo navicular joint
8. Trabecular system of hip joint

III. Short answers on:

(10 x 2 = 20)

1. Moment arm
2. Fibrous joint
3. Slow-twitch oxidative fibres
4. Lumbar-pelvic rhythm
5. Ballistic movement
6. Agonist and antagonist
7. Law of inertia
8. Cross eyed patella
9. Volar wrist musculature
10. Juntura tendinae

[LH 6256]

AUGUST 2015

Sub. Code: 6256

**B.P.T. DEGREE EXAMINATION
SECOND YEAR / III & IV SEMESTER**

PAPER II – BIOMECHANICS, APPLIED ANATOMY AND KINESIOLOGY

Q.P. Code: 746256

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Analyse posture and explain the postural deviation.
2. Describe the structure and function of vertebral column.

II. Write notes on:

(8 x 5 = 40)

1. Codman's paradox.
2. Triangular fibrocartilage complex.
3. Index of Insall and Salviti.
4. Proprioception.
5. Shoulder joint stability.
6. Anconeus and Triceps.
7. Optimal posture.
8. Nurse maid's elbow.

III. Short Answers on:

(10 x 2 = 20)

1. Pars Interarticularis.
2. Angulations of femur.
3. Bunnell's sign.
4. Dowgers hump.
5. Patella Alta and Baja.
6. Seasamoid bone.
7. Coupled motions.
8. Claw toe and hammer toe.
9. Levers.
10. Carrying angle.

[LI 6256]

FEBRUARY 2016

Sub. Code: 6256

**SECOND YEAR / III & IV SEMESTER BPT EXAM
PAPER II – BIOMECHANICS, APPLIED ANATOMY AND KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Kinetics, Kinematics and Pathomechanics of lumbar spine.
2. Explain the structure, configuration of hip joint in relation to weight bearing in unilateral and bilateral stance with stability factors.

II. Write notes on:

(8 x 5 = 40)

1. Tonic and Phasic muscles.
2. Metatarsal break.
3. Inversion and Eversion.
4. Osteokinematics and Arthrokinematics.
5. Lumbricals.
6. Active and Passive insufficiency.
7. Torque.
8. Factors affecting normal posture.

III. Short answers on:

(10 x 2 = 20)

1. Pulleys.
2. Gait determinants.
3. Mechanical advantage.
4. Pes Planus.
5. Supinator twist.
6. Vertical steering muscles of Shoulder joint.
7. Fast-twitch fibres.
8. Cubitus Valgus and Cubitus Varus.
9. Force and Acceleration.
10. Load deformation curve.

[LJ 6256]

AUGUST 2016

Sub. Code: 6256

**SECOND YEAR BPT EXAM
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Biomechanics of Knee joint.
2. Factors of mobility and stability in Spine.

II. Write notes on:

(8 x 5 = 40)

1. Explain active and passive tension.
2. Plantar arches – mechanism.
3. Centre of gravity and its application.
4. Reverse scapulohumeral rhythm.
5. Weight transference in single stance.
6. Prehension.
7. Coxa valga and coxa vara.
8. Mechanical advantage - therapeutic use.

III. Short answers on:

(10 x 2 = 20)

1. Extensor hood.
2. Trendelenberg sign.
3. Line of gravity.
4. Accessory movements.
5. Role of upperlimb in gait.
6. Rocker bottom foot.
7. Grip.
8. Osteokinematics.
9. Arcuate lines.
10. Tensile forces.

[LK 6256]

FEBRUARY 2017

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Compare and contrast biomechanics of Hip and Shoulder Joint.
2. Biomechanics of Gait.

II. Write notes on:

(8 x 5 = 40)

1. Anatomical pulley.
2. Stress and strain.
3. Squat lifting versus stoop lifting.
4. Pronation and supination.
5. Insufficiency.
6. Factors affecting muscle functions.
7. Functions of intervertebral disc.
8. Gravity its uses in therapeutics.

III. Short answers on:

(10 x 2 = 20)

1. Nucleus pulposus.
2. Posture.
3. Grasp.
4. Angle of femoral torsion – function.
5. Second order lever an example.
6. Resistance.
7. Functional position of hand.
8. Hookes law.
9. Optimal length.
10. Q-angle.

[LL 6256]

AUGUST 2017

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail the prehension activities of the Hand.
2. Discuss in detail the kinematic variables that describe the motion.

II. Write notes on:

(8 x 5 = 40)

1. Describe coupled motions with two examples.
2. Intervertebral disc – its structure and function.
3. Pathomechanics of supraspinatus impingement.
4. Kinematic chains.
5. Mechanical stress and structural adaptation of femur.
6. Effects of gravity on posture.
7. Temporal and distance variables in gait.
8. Coxa valga and coxa vara.

III. Short answers on:

(10 x 2 = 20)

1. Ataxic gait.
2. Nursemaid's elbow.
3. Extensor expansion.
4. Force couple.
5. Arthrokinematics.
6. Passive insufficiency of muscle.
7. Cadence.
8. Enthesis.
9. Layers of articular cartilage.
10. Phases of gait cycle.

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

[LM 6256]

FEBRUARY 2018

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR**

PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain three orders of Levers with examples. Add a note on mechanical advantage.
2. Describe the relationship between the Zygapophyseal joints and the Interbody joints of vertebral column.

II. Write notes on:

(8 x 5 = 40)

1. Describe dynamic stabilization of glenohumeral joint.
2. Explain the structure and function of the ligaments associated with proximal radioulnar joint.
3. Draw and explain the angulation of the femur.
4. Explain fixed support synergies with examples.
5. Differentiate isokinetic and isoinertial exercise and testing.
6. Explain the structure and function of plantar aponeurosis.
7. Explain the determinants of gait.
8. Write about the attachments and functions of cruciate ligaments of tibiofemoral joint.

III. Short answers on:

(10 x 2 = 20)

1. What is synostosis?
2. What is a motor unit?
3. What is Bunnell's Sign?
4. What is dorsal inter-calated segmental instability?
5. Write the attachment of spring ligament.
6. What is Genu recurvatum?
7. State two functions of volar plate.
8. What is metatarsal break?
9. Draw the Feiss line.
10. Name two structures that maintain the palmar arch.

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

[LN 6256]

AUGUST 2018

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Write the structure and function of the Hip joint, with the Hip joint pathology.
2. Write the structure and contractile unit of a muscle. Write the types of muscle fibre and the types of muscle contraction.

II. Write notes on: **(8 x 5 = 40)**

1. Active insufficiency.
2. Locking and unlocking mechanism of knee joint.
3. Concurrent force system.
4. Synovial joint and its subdivision.
5. Law of inertia.
6. Knee joint incongruence.
7. Pelvic tilt.
8. Centre of gravity.

III. Short answers on: **(10 x 2 = 20)**

1. Claw toes.
2. Axes and planes.
3. Hook grip.
4. Arches of foot.
5. Spurt and shunt muscle.
6. Facet joint.
7. Tenodesis.
8. Synostosis.
9. Shear.
10. Golgi tendon.

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

[LO 6256]

FEBRUARY 2019

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: (2 x 20 = 40)

1. Difference between Phasic and Tonic muscle and add the notes on active and passive insufficiency.
2. Describe the general effects of injury and disease of the joint structure.

II. Write notes on: (8 x 5 = 40)

1. Centre of gravity.
2. Isokinetic exercise.
3. Concentric exercise.
4. Intervertebral disc.
5. Carrying Angle.
6. Coxa vara.
7. Tennis and nurse – maid's Elbow.
8. Q angle of knee joint.

III. Short answers on: (10 x 2 = 20)

1. Synarthrosis.
2. What is scaption?
3. Pescavus.
4. Waddling gait.
5. Postural muscle.
6. Pad to pad grip.
7. Synovial joint.
8. Scapulo humeral rhythm.
9. Force vectors.
10. Accessory movements.

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

[LP 6256]

AUGUST 2019

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss the Kinematics and Kinetics of Patella Femoral Joint adding note on applied anatomy also.
2. Discuss in detail the Kinematic variables that describe the motion of Scapulothoracic and Glenohumeral joint.

II. Write notes on: **(8 x 5 = 40)**

1. Frontal plane deviations from optimal vertebral alignment.
2. Properties of tendon.
3. Flexor mechanism of hand.
4. Analysis of sitting posture.
5. Types of muscle fibers and its function.
6. Abnormal gait due to muscle paralysis.
7. Muscles and movements of Radioulnar joint.
8. Ligaments of knee.

III. Short answers on: **(10 x 2 = 20)**

1. Intercalated segment.
2. Squeeze film lubrication.
3. Step width.
4. Campers chiasma.
5. Counternutation.
6. Function of metatarsophalangeal joint.
7. Ligamentum teres.
8. Latissimus Dorsi.
9. Muscle spindle.
10. Joint play.

[LQ 6256]

FEBRUARY 2020

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY**

Q.P. Code : 746256

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: (2 x 20 = 40)

1. Describe the structure and functions of Hip joint.
2. Analyze posture with respect to the optimal alignment and brief about postural deviations.

II. Write notes on: (8 x 5 = 40)

1. Describe the role of sternoclavicular joint in shoulder movements.
2. Describe the role of muscles that maintain the erect posture.
3. Describe the role of Cruciate ligaments in knee stability
4. Describe the intrinsic and extrinsic foot muscles.
5. Factors affecting the mobility of the lumbar vertebral column.
6. Describe scapula humeral rhythm and codman's paradox.
7. Describe the role of interossei and lumbricals at the MCP and IP joints.
8. Describe the functions of Tibiofemoral joint.

III. Short answers on: (10 x 2 = 20)

1. Cadence.
2. Anteversion and Retroversion.
3. Coracoacromial arch.
4. Equinus gait.
5. Types of hand grip.
6. Muscles of elevation of shoulder.
7. Components of force.
8. Synergist and fixator.
9. Ligaments of Bigelow.
10. Prehension.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6256

**BPT DEGREE EXAMINATION
SECOND YEAR**

PAPER II – BIO-MECHANICS, APPLIED ANATOMY & KINESIOLOGY

Q.P. Code : 746256

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the postural deviations from optimal alignment in the frontal plane.
2. Describe in detail the structure and function of Humeroulnar and Humeroradial joints.

II. Write notes on:

(8 x 5 = 40)

1. Explain the structure and function of scapulothoracic joint.
2. Describe the structure and function of thoracolumbar fascia.
3. Explain force velocity relationship.
4. Describe the layers and functions of joint capsule.
5. Write about the ligaments supporting the subtalar joint.
6. Explain the mechanism of finger flexion.
7. Compare running verses walking gait.
8. Describe the motions of patella with diagrams.

III. Short answers on:

(10 x 2 = 20)

1. State the six main ligaments associated with intervertebral and zygapophyseal joints.
2. What is normal sway envelope?
3. What is spodylolisthesis?
4. Draw the angle of wiberg.
5. What is patellar plica?
6. Define torque.
7. Write the attachment and function of Ligamentum Teres.
8. What is Hysteresis?
9. What are joint reaction forces?
10. What is Young's modulus?

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

[BPT 0921]

SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)

Sub. Code: 6256

BPT DEGREE EXAMINATION
**SECOND YEAR - (Regulations of 2004-2005 and 2006-2007 admitted candidates
are merged with 2010-2011)**
PAPER II – BIO-MECHANICS, APPLIED ANATOMY AND KINESIOLOGY
Q.P. Code : 746256

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define gait and explain in detail about the pathomechanics of gait.
2. Describe the tissues present in human joints and mention general effects of injury and disease.

II. Write notes on:

(8 x 5 = 40)

1. Structure and function of Plantar arches.
2. Differentiate coxa valga from coxa vara.
3. Explain about function of the cervical region.
4. Explain about pes planus.
5. Centre of gravity.
6. Concurrent force system.
7. Volar plate.
8. Lumbar pelvic rhythm.

III. Short answers on:

(10 x 2 = 20)

1. Moment arm of a force.
2. Shear force.
3. Grip.
4. Subacromial space.
5. Force vectors.
6. Joint Play.
7. H zone.
8. Intercalated segment.
9. Squeeze film lubrication.
10. Waddling gait.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6256

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR – (Regulations of 2004-2005 & 2006-2007 are merged with 2010-2011)
PAPER II – BIO-MECHANICS, APPLIED ANATOMY AND KINESIOLOGY
*Q.P. Code : 746256***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe hip joint in brief and give its biomechanics in detail. Brief on its Pathomechanics also.
2. Define and describe Gait. Explain any three pathological gaits in detail.

II. Write notes on:

(8 x 5 = 40)

1. Length – tension relationship in a muscle.
2. Ergonomics.
3. Lumbo sacral rhythm.
4. Bilateral stance.
5. Motor unit and its firing.
6. Prehension.
7. Arthro kinematics in shoulder.
8. Pes Cavus.

III. Short answers on:

(10 x 2 = 20)

1. Genu Valgum.
2. Arcuate lines.
3. ISO inertia.
4. Extensor expansion.
5. Plane of thumb.
6. Carrying angle.
7. Creep behavior.
8. Trendelenberg's sign.
9. Locking mechanism.
10. Angle of pull.

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

[LP 6277]

AUGUST 2019

Sub. Code: 6277

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY

Q.P. Code : 746277

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Explain the details of joint classification with examples and add note on Joint receptors.
2. Describe the Kinetics and Kinematics of Knee joint. Add a note on applied anatomy of Knee Joint.

II. Write notes on:

(10 x 5 = 50)

1. Angles of Hip joint.
2. Viscoelasticity.
3. Factors affecting muscle functions.
4. Scapula humeral rhythm.
5. Determinants of Gait.
6. Supinator twist & Pronator twist.
7. Anterior cruciate ligament.
8. Ground reaction force.
9. Pregnancy posture.
10. Supra humeral arch.

III. Short answers on:

(10 x 2 = 20)

1. Avulsion.
2. Gomphosis.
3. Cubitus valgus.
4. Zona orbicularis.
5. Pes anserinus.
6. H zone.
7. Postural sway.
8. Stride length.
9. Trendelenburg gait.
10. Sacromere.

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

[LQ 6277]

FEBRUARY 2020

Sub. Code: 6277

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER II – BIOMECHANICS, APPLIED ANATOMY & KINESIOLOGY

Q.P. Code : 746277

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Explain about Postural analysis and Postural deviations.
2. What is Arch? Explain the details of plantar arches.

II. Write notes on:

(10 x 5 = 50)

1. Linear force system.
2. Length tension relationship.
3. Ligamentum Flavum.
4. Extensor mechanism of wrist & fingers.
5. Bursae around knee joint.
6. Subtalar Axis.
7. Meniscus.
8. Codman's paradox.
9. Sliding filament theory.
10. Sensory receptors.

III. Short answers on:

(10 x 2 = 20)

1. Torque.
2. Proteoglycans.
3. Volar plate.
4. Housemaid's knee.
5. Woven bone.
6. Ligamentum teres.
7. Trigger finger.
8. Mechanical advantage.
9. Lister's tubercle.
10. Hoop stress.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6277

**BPT DEGREE EXAMINATION
SECOND YEAR**

(New regulations for the candidates admitted from 2017-2018 onwards)

PAPER II – BIO-MECHANICS, APPLIED ANATOMY & KINESIOLOGY

Q.P. Code : 746277

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the details of static and dynamic stabilization of Shoulder joint.
2. Explain the structure of configuration of Knee joint with factors contributing for its stability.

II. Write notes on:

(10 x 5 = 50)

1. Stress and Strain.
2. Corocoacromial arch.
3. Muscles contribution to the arches.
4. Pelvic tilt.
5. Screw home mechanism.
6. Anatomical Pulleys.
7. Ideal posture.
8. Physiological valgus at knee.
9. Young Modulus.
10. 'T' tubules.

III. Short answers on:

(10 x 2 = 20)

1. Ovoid joint.
2. Alar ligament.
3. Patella alta & baja.
4. Power grip.
5. Index plus foot & index minus foot.
6. Angle of wiberg.
7. Hallux rigidus.
8. Cross eyed patella.
9. Potential energy.
10. Chondrocytes.

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

[BPT 0921]

SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)

Sub. Code: 6277

BPT DEGREE EXAMINATION
SECOND YEAR
(Regulations for the candidates admitted from 2017-2018 onwards)
PAPER II – BIO-MECHANICS, APPLIED ANATOMY & KINESIOLOGY
Q.P. Code : 746277

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Explain about the biomechanical properties of connective tissues.
2. Explain the structure configuration of hip joint in relation to weight bearing in unilateral and bilateral stance along with factors contributing for its stability.

II. Write notes on:

(10 x 5 = 50)

1. Sensory receptors in muscle.
2. Supination and pronation twist.
3. Extensor Expansion.
4. Scapulo-humeral rhythm.
5. Concurrent force system.
6. Triangular Fibro-Cartilage Complex (TFCC).
7. Determinants of gait.
8. Intervertebral disc.
9. Patello-Femoral joint reaction force.
10. Osteokinematic and arthrokinematics.

III. Short answers on:

(10 x 2 = 20)

1. Synergist.
2. Scaption.
3. Angle of Wiberg.
4. Lister tubercle.
5. Cadence.
6. Torque.
7. Patella baja.
8. Moment arm.
9. Fibrous joint.
10. Couple motion.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6277

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR (Regulations from 2017-2018 onwards)
PAPER II – BIO-MECHANICS, APPLIED ANATOMY & KINESIOLOGY
*Q.P. Code : 746277***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe in detail the function and biomechanics of lumbar spine and also its Pathomechanics.
2. Give in detail the interaction between the spine, pelvis, hip, knee ankle and foot and upper limbs in gait.

II. Write notes on:

(10 x 5 = 50)

1. Hand Function.
2. Importance of angles and curves in femur.
3. Elasticity and it's effects over joints.
4. Arches of foot and its biomechanics.
5. Comment on Osteo kinematics and Arthro kinematics.
6. Role of Scapulo Humeral Rhythm.
7. Optimal muscle length, comment on its efficiency.
8. Grip and grasp functions.
9. Abdominals in posture maintenance.
10. Elbow joints – its biomechanics.

III. Short answers on:

(10 x 2 = 20)

1. Stride Length.
2. Pes Cavus.
3. Facet joints.
4. Opposition.
5. Arcuate lines.
6. Creeps phenomenon.
7. Convergent forces.
8. Line of gravity.
9. Joint reaction force.
10. Resting position of hand.

[LD 6270]

AUGUST 2013

Sub. Code: 6270

SECOND YEAR BPT EXAM

PAPER III - EXERCISE THERAPY - I – INCLUDING MANUAL
THERAPY

Q.P. Code : 746270

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Describe in detail the postural mechanisms. What are the principles and techniques of postural re education.
2. Define active movement. Classify active movements.

II. Write Notes on:

(8X5=40)

1. Phases of gait cycle.
2. Hold Relax technique.
3. Whirlpool bath.
4. Closed kinematic and open kinematic chain exercises.
5. Concave – convex rule.
6. Mat activities.
7. Physiological effects of passive movements.
8. Describe high kneeling.

III. Short Answers:

(10X2=20)

1. Define cadence.
2. Buoyancy.
3. FITT principle
4. 3rd order lever.
5. 10 repetitions maximum
6. Muscle tone
7. Centre of gravity
8. Frontal plane.
9. Movable pulley
10. Why is high fever contraindicated for passive movements?

**SECOND YEAR BPT EXAM
PAPER III - EXERCISE THERAPY - I – INCLUDING MANUAL
THERAPY**

Q.P. Code : 746270

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Define resisted exercises. Write down its advantages, classification, technique, effects and uses.
2. Explain levers, its orders and the application of levers in physiotherapy.

II. Write Notes on:

(8X5=40)

1. Petrissage technique
2. Physical properties of water
3. History of massage
4. Define posture. Explain how the equilibrium of posture is maintained
5. Maitland's Graded Oscillatory Technique
6. Axis and planes
7. Free exercise to the shoulder joint
8. Sequence for neck massage

III. Short Answers:

(10X2=20)

1. Pulleys
2. Line of gravity
3. Joint shapes
4. Ironing
5. Two joint muscle
6. Repetition maximum
7. Mulligan concept
8. Barrier concept
9. Rhythmic initiation
10. Physiological relaxation

[LF 6270]

AUGUST 2014

Sub. Code: 6270

**SECOND YEAR / III & IV SEMESTER BPT EXAM
PAPER III - EXERCISE THERAPY - I**

Q.P. Code : 746270

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Define proprioceptive neuro muscular facilitation? Explain in details about basic techniques, principles, effects and uses.
2. Define Hydrotherapy. Explain in detail about principles, indication, contra-indication, procedure, physiological and therapeutic effects.

II. Write Notes on:

(8X5=40)

1. Contrast Bath
2. Hanging
3. Types of muscle contraction
4. Kinematic chain exercises & types
5. Group exercise
6. Shunt-Spurt muscle
7. Pulleys and springs
8. Percussion manipulation

III. Short Answer:

(10X2=20)

1. Reach standing
2. Friction
3. Define kneading and its types
4. Traction and its types
5. Inertia
6. Parallelogram Law of vectors
7. Third Order lever
8. Hooke's law
9. Pelvic tilt
10. Progressive – Resisted Exercise

[LG 6270]

FEBRUARY 2015

Sub. Code: 6270

**SECOND YEAR / III & IV SEMESTER BPT EXAMINATION
PAPER III - EXERCISE THERAPY - I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the various relaxation exercises with reference to its principles and application.
1. Define Posture. Discuss in detail various factors involved in maintenance of good posture. Add a note on postural donations.

II. Write notes on:

(8 x 5 = 40)

1. Health and hygiene for the massage therapist
2. Explain the kinetics and kinematic studies in human gait
3. Indications for massage therapy
4. Explain the basis of postural training
5. Friction massage types, benefits
6. Nervous control of movement
7. Client positioning for massage
8. Accessory movements

III. Short answers on:

(10 x 2 = 20)

1. Non- weight bearing exercises
2. Lateral tilting of pelvis
3. Quadriceps contraction
4. Acceleration
5. Massage – oils
6. Repetition Maximum
7. Muscle fatigue
8. Endangerment sites
9. Ergometer
10. Plyometric training

[LH 6270]

AUGUST 2015

Sub. Code: 6270

**B.P.T. DEGREE EXAMINATION
SECOND YEAR / III & IV SEMESTER
PAPER III – EXERCISE THERAPY - I**

Q.P. Code: 746270

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Discuss briefly about various phases of gait cycle. Add a note on pathological gaits.
2. Describe the classification of massage and the physiological effects of massage on various body systems.

II. Write notes on:

(8 x 5 = 40)

1. Positions derived from standing.
2. Values of group exercise.
3. PNF- Patterns of facilitation.
4. Tests for neuromuscular efficiency.
5. Effleurage.
6. Principles of relaxed passive movements.
7. History of massage.
8. Effects of immobilization, injury.

III. Short Answers on:

(10 x 2 = 20)

1. Pendulums.
2. Pelvic tilt.
3. Elasticity.
4. Types of muscle work.
5. Aims of exercise therapy.
6. Tendon- Gliding exercises.
7. Pelvic floor muscle exercises.
8. Fitness.
9. Benefits of Tapotement.
10. Endurance.

[LI 6270]

FEBRUARY 2016

Sub. Code: 6270

**SECOND YEAR BPT EXAMINATION
PAPER III - EXERCISE THERAPY - I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe in detail the various techniques of general and local relaxation.
2. Describe in detail the techniques and principles of Hydrotherapy.

II. Write notes on:

(8 x 5 = 40)

1. Fixed and movable pulleys.
2. 3rd order levers.
3. Line of gravity, base and equilibrium.
4. Axes and planes.
5. Describe the muscle work and uses of Standing.
6. Rhythmic stabilization.
7. Bio Mechanical principles of gait.
8. Derived positions of sitting.

III. Short answers on:

(10 x 2 = 20)

1. Acceleration.
2. Momentum.
3. Angle of pull.
4. Buoyancy.
5. Concave-Convex Role.
6. Fryette's Law.
7. Work.
8. Inertia.
9. Waddling Gait.
10. General contraindications for active exercise.

[LJ 6270]

AUGUST 2016

Sub. Code: 6270

**SECOND YEAR BPT EXAMINATION
PAPER III - EXERCISE THERAPY - I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain in detail the principles, techniques of Proprioceptive neuromuscular facilitation (PNF).
2. Define Lever. Discuss in detail the types and uses of Lever in Physiotherapy.

II. Write notes on:

(8 x 5 = 40)

1. Passive insufficiency.
2. Types of traction.
3. Angle of pull.
4. Postural control mechanism.
5. Purpose and uses of bridging.
6. Techniques of local Relaxation.
7. Determinants of gait.
8. Technique of friction and its effects and uses.

III. Short answers on:

(10 x 2 = 20)

1. Inner range of muscle work in concentric contraction.
2. Kinetic energy.
3. Stride stand.
4. Vibratory manipulation.
5. Factors causing BAD posture.
6. Trendelenburg gait.
7. Define – active assisted exercise.
8. Quadriceps table.
9. Effects of therapeutic exercise.
10. Fast twitch fatigue resisted muscle fibre.

[LK 6270]

FEBRUARY 2017

Sub. Code: 6270

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Write down the principles, indications and contraindications of Hydrotherapy, add a note on safety precautions during Hydrotherapy.
2. Define Gait. Describe in detail the various phases of gait. Elaborate in detail the various pathological Gait.

II. Write notes on:

(8 x 5 = 40)

1. Pelvic tilt.
2. Types of muscular contraction.
3. Pulleys and its therapeutic uses.
4. Contract relax/Hold relax.
5. Free exercises for shoulder joint.
6. Jacobson's relaxation technique.
7. De'lormes technique.
8. Second order lever with example.

III. Short answers on:

(10 x 2 = 20)

1. Define - Exercise therapy.
2. Purpose of mat activity.
3. Therapeutic effects of pounding.
4. Parameters used in traction.
5. Hanging.
6. Circumduction motion.
7. Endurance exercise.
8. Shunt and spurt muscles.
9. Mental imaginary technique.
10. Circular kneading.

[LL 6270]

AUGUST 2017

Sub. Code: 6270

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail the physiological and therapeutic effects of free exercises.
2. Define Posture, discuss in detail posture reflex mechanism.

II. Write notes on:

(8 x 5 = 40)

1. Manual muscle testing.
2. Various standing position.
3. Free exercises to knee joint.
4. Joint mobility.
5. Poor posture.
6. Manual contacts.
7. Hydrotherapy.
8. Determinants of gait.

III. Short answers on:

(10 x 2 = 20)

1. Angle of pull.
2. Muscle tone.
3. Facilitation.
4. Static posture.
5. High standing.
6. Goniometer.
7. Gravity.
8. Limb length assessment.
9. Range of muscle work.
10. Repetition of movements.

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

[LM 6270]

FEBRUARY 2018

Sub. Code: 6270

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Starting and Derived position. Describe in detail the fundamental and derived positions of standing.
2. Define Posture. What is generally understood by the term “poor posture”? Give the principles of treatment by means of which a good Posture may be established.

II. Write notes on:

(8 x 5 = 40)

1. Free exercise for hip joint.
2. Hydrotherapy-contraindications.
3. Principles of active assisted exercise.
4. Active inhibition/Reciprocal relaxation.
5. Group exercise.
6. Auto traction.
7. Effleurage.
8. Effects of therapeutic exercise's.

III. Short answers on:

(10 x 2 = 20)

1. Pendulums.
2. Translatory motion.
3. Define – Pulley.
4. Isokinetic contraction.
5. Theraband.
6. Neutral equilibrium.
7. Multipennate muscle.
8. Line of gravity.
9. Newton's law of inertia.
10. Therapist positions during treatment.

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

[LN 6270]

AUGUST 2018

Sub. Code: 6270

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. What is Group exercise and write in detail the types of group exercise and its advantages?
2. Define PNF and write in detail various techniques of PNF.

II. Write notes on:

(8 x 5 = 40)

1. Stroking manipulation.
2. Types of motion.
3. Principles of passive movement.
4. Define levers with an example.
5. Anatomical movements.
6. Derived positions from kneeling.
7. Faulty postures.
8. Effects of hydrotherapy.

III. Short answers on:

(10 x 2 = 20)

1. Stroking.
2. Tredelenburg gait.
3. Calcaneal gait.
4. Assisted exercise.
5. Passive range of motion.
6. Concentric contraction.
7. Gait cycle.
8. Hold relax.
9. Foot bath.
10. Rhythmic initiation.

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

[LO 6270]

FEBRUARY 2019

Sub. Code: 6270

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail the technique and effects and uses of passive movements.
2. Discuss in detail the effects and uses of free exercises.

II. Write notes on:

(8 x 5 = 40)

1. Group action of muscles.
2. Static power test.
3. Antero-posterior tilt.
4. Free exercises to shoulder.
5. Neuro muscular co-ordination.
6. Types of pathological gait.
7. Prone lying.
8. Active stretching.

III. Short answers on:

(10 x 2 = 20)

1. Motor unit.
2. Synergist.
3. Support.
4. Posture tone.
5. Speed test.
6. Gravity.
7. Axis and plans.
8. Grasp standing.
9. Accessory movements.
10. Second order lever.

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

[LP 6270]

AUGUST 2019

Sub. Code: 6270

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Gait. Explain its various parameters.
2. Write a detailed note on Mat activities.

II. Write notes on:

(8 x 5 = 40)

1. Describe percussion manipulation.
2. Non-equilibrium test to assess coordination.
3. Therapeutic effects of massage.
4. Sequence for neck massage.
5. Contrast Bath.
6. Lurching gait.
7. Group exercise.
8. D₂ Flexion.

III. Short answers on:

(10 x 2 = 20)

1. Define self-stretching.
2. Static posture.
3. Limb length assessment.
4. Translatory motion.
5. 10 repetitions maximum.
6. Define kneading.
7. Muscle fatigue.
8. Fitness.
9. Acceleration.
10. General contraindications for active exercise.

[LQ 6270]

FEBRUARY 2020

Sub. Code: 6270

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I**

Q.P. Code : 746270

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. What is the mechanism of Traction? Describe about the various types of traction and its physiological effects.
2. List down the various abnormal postural changes in Spine and describe in detail about the postural assessment for the various spinal deformities.

II. Write notes on:

(8 x 5 = 40)

1. Describe the muscle work and uses of sitting.
2. Free exercises for knee joint.
3. Write a note on value of group exercise.
4. Phases of Gait according to Rancho Los Amigos classification.
5. Physiological effects of massage.
6. Describe how to make the right side hemiplegic patients to stand from quadruped position with muscle power 3.
7. Contrast bath.
8. Parkinson's gait.

III. Short answers on:

(10 x 2 = 20)

1. Effects of therapeutic exercise.
2. Define Power.
3. Isometric contraction.
4. Types of active movements.
5. Step length.
6. Uses of bridging.
7. Mental imagery technique.
8. Kneading.
9. D1 flexion.
10. Hubbard tank.

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

[BPT 0921]

SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)

Sub. Code: 6270

BPT DEGREE EXAMINATION
SECOND YEAR
PAPER III - EXERCISE THERAPY – I
Q.P. Code : 746270

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define resisted exercises? Write down its Classification, Techniques, Effects and Uses.
2. Define Lever? Discuss in detail about the order of Levers with examples and applications in Physiotherapy.

II. Write notes on:

(8 x 5 = 40)

1. Effect of Therapeutic Exercise.
2. Scissoring Gait.
3. Axillary crutches and its uses.
4. General Relaxation Techniques.
5. Types of Hydrotherapy.
6. Free Exercises for the hand.
7. Principles of Joint Mobilization.
8. Relaxed Passive Movement.

III. Short answers on:

(10 x 2 = 20)

1. Define Force.
2. Line of Gravity.
3. Define Work.
4. Starting Position.
5. Angle of pull.
6. Newton's law of Inertia.
7. Define Pendulum.
8. Walk standing.
9. Muscle power.
10. Unstable equilibrium.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6270

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR
PAPER III - EXERCISE THERAPY – I
*Q.P. Code : 746270***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe in detail the postural mechanisms. What are the principles and techniques of postural Re-education.
2. Define active movement. Classify active movements.

II. Write notes on:

(8 x 5 = 40)

1. Springs.
2. Axillary Crutch.
3. Position of the Joints.
4. Progressive – Resisted exercise.
5. Indications and Contraindications of Peripheral Joint Mobilization.
6. Arthrokinematics.
7. Effects of hydrotherapy.
8. Scissoring Gait.

III. Short answers on:

(10 x 2 = 20)

1. Hook's Law.
2. Therapist positions during treatment.
3. Calcaneal gait.
4. Effects of therapeutic exercise.
5. Step length.
6. Endurance.
7. Multipennate muscle.
8. Motor unit.
9. Second order lever.
10. Hubbard tank.

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

[LP 6278]

AUGUST 2019

Sub. Code: 6278

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER III - EXERCISE THERAPY – I

Q.P. Code : 746278

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Define Gait. Add note on its various spatial and temporal variables.
2. Define Hydrotherapy. Explain in detail about Principles, Indications, contra-indications, Procedure, physiological and therapeutic effects of hydrotherapy.

II. Write notes on:

(10 x 5 = 50)

1. Axillary crutch.
2. Abnormal spinal curvatures.
3. Isometric muscle contraction.
4. Joint mobilization.
5. Determinants of gait.
6. Free exercise for knee joint.
7. Mat activities.
8. Abdominal exercises.
9. Hubbard Tank.
10. Types of Motion.

III. Short answers on:

(10 x 2 = 20)

1. Muscle work.
2. Repetition maximum.
3. Buoyancy.
4. Aims of exercise therapy.
5. Tendon-Gliding exercises.
6. Pelvic floor muscle exercises.
7. Waddling Gait.
8. Pelvic tilt.
9. Relaxation.
10. Parallel bar.

[LQ 6278]

FEBRUARY 2020

Sub. Code: 6278

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER III - EXERCISE THERAPY – I

Q.P. Code : 746278

Time: Three hours

Maximum: 100 Marks

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

1. Define Resisted Exercises. Write down its classification, technique, effects and advantages.
2. Describe about the principles, indications, contraindications and effects of joint mobilization. Add a note on Shoulder joint mobilization.

II. Write notes on: **(10 x 5 = 50)**

1. Types of walking aids.
2. Free exercise for shoulder joint.
3. Open and closed kinematic chain exercises.
4. Principles of Passive movements.
5. Describe the muscle work and uses of lying.
6. Lordosis.
7. Reeducation of elbow extensor from muscle power 0 to 5.
8. Manual muscle testing for Tibialis anterior.
9. Whirlpool bath.
10. What are the crutch muscles and how will you prepare the patient before providing crutches?

III. Short answers on: **(10 x 2 = 20)**

1. Stabilizer.
2. Hydrostatic pressure.
3. Crook sitting.
4. Oscillatory technique.
5. Plyometric training.
6. Uses of quadruped position.
7. Types of walkers.
8. Axis.
9. Flat back.
10. Passive insufficiency.

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

[BPT 0921]

**SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)**

Sub. Code: 6278

**BPT DEGREE EXAMINATION
SECOND YEAR
(Regulations for the candidates admitted from 2017-2018 onwards)
PAPER III - EXERCISE THERAPY – I
*Q.P. Code : 746278***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe in detail the postural mechanisms. What are the principles and techniques of postural re-education.
2. Describe in detail the techniques and principles of Hydrotherapy.

II. Write notes on:

(10 x 5 = 50)

1. Range of muscle work.
2. Axis and Planes.
3. Canes – Purpose and Types of cane.
4. Levers – Ist order IIInd order, IIIrd order, examples, application in PT.
5. Phases of gait.
6. Define Gravity.
7. Effect of prolonged immobilization.
8. General relaxation.
9. Faulty or Abnormal postures.
10. Parkinson gait.

III. Short answers on:

(10 x 2 = 20)

1. Definition of speed.
2. Range of motion (ROM) – Definition, Types.
3. Types of wheel chair.
4. Hold relax technique.
5. Thomas test.
6. Crook lying position.
7. Kyphosis..
8. Types of muscular contraction.
9. Progressive resisted exercise – Mac queen.
10. Define Pulley and its types.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6278

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR- (Regulation from 2017-2018 onwards)
PAPER III - EXERCISE THERAPY – I
*Q.P. Code : 746278***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. What are the types of Crutches. Explain the crutch walking in non weight bearing and partial weight bearing.
2. Define free exercises. Write down its classification, technique, effect and uses of free exercises.

II. Write notes on:

(10 x 5 = 50)

1. Free exercise for shoulder flexor.
2. Exercises in hydrotherapy.
3. Assessment of Posture in lateral view.
4. Derived position of standing.
5. Types of muscle contraction.
6. Angle of pull with anatomical examples.
7. Mechanical resisted exercises.
8. Parkinson Gait.
9. Types and uses of walkers.
10. Jacobson's relaxation techniques.

III. Short answers on:

(10 x 2 = 20)

1. Centre of Gravity.
2. Range of Muscle work.
3. Scoliosis.
4. Half – Kneeling.
5. Shoe's on measurement.
6. Name the Starting positions.
7. Bridging.
8. Base of support.
9. Define work.
10. Law of Inertia.

[LD 6271]

AUGUST 2013

Sub. Code: 6271

B.P.T. DEGREE EXAMINATION
SECOND YEAR
PAPER IV – EXERCISE THERAPY - II
INCLUDING MASSAGE

Q.P. Code: 746271

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Discuss the Procedure, advantages and disadvantages of various types of suspension.
2. How do you prepare a below knee amputee for crutch walking?

II. Write notes on:

(8 x 5 = 40)

1. Facial massage.
2. Oxford method of progressive resisted exercise.
3. Balance training.
4. End feel.
5. Self stretching of Hamstring muscles.
6. Concavo convex rule.
7. How does a massage practitioner maintain good body mechanics?
8. Pursed lip breathing.

III. Short Answers on:

(10 x 2 = 20)

1. How do you apply massage techniques to a ticklish subjects?
2. Thomas test.
3. Reciprocal inhibition.
4. Friction.
5. Pendular exercise.
6. Tripod.
7. How will you check the ideal height of massage table.
8. Home program for patient with mechanical low back pain.
9. Define muscle strength.
10. Exercise for foot intrinsic muscles.

[LE 6271]

FEBRUARY 2014

Sub. Code: 6271

B.P.T. DEGREE EXAMINATION
SECOND YEAR
PAPER IV – EXERCISE THERAPY - II
INCLUDING MASSAGE

Q.P. Code: 746271

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Describe the causes of in co-ordination. Explain the principles of coordination exercise.
2. Describe the complications of prolonged bed rest patients.
Add a note on maintenance exercise for patients on prolonged bed rest.

II. Write notes on:

(8 x 5 = 40)

1. Crutch measurement.
2. Quadriceps table.
3. Effects and Uses of relaxed passive movements.
4. Walking aids.
5. Uses of breathing exercise.
6. Manual muscle stretching of hamstring muscle.
7. Movements of ankle and foot.
8. Technique of general relaxation.

III. Short Answers on:

(10 x 2 = 20)

1. In co-ordination.
2. Controlled sustained stretching of foot.
3. Fixation.
4. Axial suspension.
5. Static cycle.
6. Biaxial joint movement.
7. Controlled sustained stretch.
8. Prone Kneeling.
9. Free exercise.
10. Finger kneading.

[LF 6271]

AUGUST 2014

Sub. Code: 6271

**B.P.T. DEGREE EXAMINATION
SECOND YEAR / III & IV SEMESTER**

PAPER IV – EXERCISE THERAPY - II AND SOFT TISSUE MANIPULATIONS

Q.P. Code: 746271

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Explain in detail about different techniques involved in facial massage and its physiological and therapeutic effect.
2. Explain in detail the techniques of proprioceptive neuromuscular facilitation by Dr. Herman Kabat and effects and uses.

II. Write notes on:

(8 x 5 = 40)

1. Contracture and Deformity.
2. Causes of Muscle Paralysis.
3. Mobilisation of a stiff joint.
4. Measures for Prevention of Muscle wasting.
5. Grades of Spasticity.
6. Abnormal Posture.
7. Mobility Aids.
8. Gait cycle.

III. Short Answers on:

(10 x 2 = 20)

1. Agility Exercises.
2. Isometric Exercises.
3. Endurance.
4. Hold and Pull.
5. Flaccidity.
6. Scissoring Gait.
7. Petrissage.
8. All or none law.
9. Torque.
10. Double joint muscle.

[LG 6271]

FEBRUARY 2015

Sub. Code: 6271

**B.P.T. DEGREE EXAMINATION
SECOND YEAR / III & IV SEMESTER**

PAPER IV – EXERCISE THERAPY - II AND SOFT TISSUE MANIPULATIONS

Q.P. Code: 746271

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Define stretching. Discuss the procedure of stretching of Hamstring muscle.
2. How do you assess muscle power of Tibialis Anterior? Explain the reeducation of Tibialis Anterior from muscle power 0 to 5.

II. Write notes on:

(8 x 5 = 40)

1. Stair gait with crutches.
2. Contraindications of massage.
3. Diaphragmatic breathing exercise.
4. Purpose and types of walkers.
5. Techniques of chest physiotherapy.
6. Ballistic stretching.
7. Pendular suspension.
8. Balance exercise for vestibular dysfunction.

III. Short Answers on:

(10 x 2 = 20)

1. Kneeding.
2. Pressure sores.
3. Effects of passive movements.
4. Crutch muscles.
5. Quadripod.
6. Functional reach test.
7. Inner range.
8. Swing through gait.
9. Preparation of therapist before massage.
10. Static quadriceps exercise.

[LH 6271]

AUGUST 2015

Sub. Code: 6271

**B.P.T. DEGREE EXAMINATION
SECOND YEAR / III & IV SEMESTER**

PAPER IV – EXERCISE THERAPY - II AND SOFT TISSUE MANIPULATIONS

Q.P. Code: 746271

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 20 = 40)

1. Discuss the various grading system of muscle power. Explain in detail about the procedure of manual muscle testing of Biceps brachi.
2. Describe the indications, principles and procedure of Frenkel's exercise.

II. Write notes on:

(8 x 5 = 40)

1. Indications and contraindications of passive movement.
2. Stretching of pectoralis major.
3. Segmental expansion exercise.
4. Crutch balance training.
5. Cardiovascular complications of bed rest.
6. Types of goniometers.
7. Daily adjustable progressive resisted exercise.
8. Indications for suspension therapy.

III. Short Answers on:

(10 x 2 = 20)

1. Stroking.
2. Contraindications for facial massage.
3. PNF stretch.
4. Theraband.
5. Pulley.
6. Disuse atrophy.
7. Two point gait.
8. Schober's test.
9. Close kinematic chain exercise.
10. Home program for Bell's palsy.

[LI 6271]

FEBRUARY 2016

Sub. Code: 6271

**SECOND YEAR BPT EXAMINATION
PAPER IV - EXERCISE THERAPY - II INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain the principles of Goniometry. Describe the procedure of assessment of range of all movements of shoulder joint.
2. Discuss the indications, contra indications, technique, effects and uses of Back Massage.

II. Write notes on:

(8 x 5 = 40)

1. Grades of mobilization.
2. Purpose and parts of wheelchair.
3. Massage table.
4. Uses of breathing exercises.
5. Axial suspension.
6. Self stretching of Trapezius.
7. Manual muscle testing for quadriceps.
8. Free exercise for knee joint.

III. Short answers on:

(10 x 2 = 20)

1. Re-education board.
2. Types of passive movements.
3. Rolaters.
4. Electrogoniometers.
5. Wobble board.
6. Glossopharyngeal breathing.
7. Springs.
8. Prevention of deep vein thrombosis.
9. Define coordination.
10. Physiological changes to muscle stretch.

[LJ 6271]

AUGUST 2016

Sub. Code: 6271

**SECOND YEAR BPT EXAMINATION
PAPER IV - EXERCISE THERAPY - II INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Explain the principles of passive Stretching. Describe assessment of hip flexor tightness and management including home program.
2. Explain the grades of Mobilization. Discuss the indications, contra-indications, technique, effects and uses of knee Mobilization.

II. Write notes on:

(8 x 5 = 40)

1. Facial massage.
2. Purpose, types and parts of crutch.
3. Close pack and loose pack position.
4. Effect of prolonged immobilization on muscle and bone.
5. Pendular suspension.
6. Axis for measurement of hip abduction and adduction range.
7. Rolling activity and its uses.
8. Biceps muscle work in inner, middle and outer range.

III. Short answers on:

(10 x 2 = 20)

1. Types of muscle work
2. Sports massage
3. Walking stick
4. Gravitational goniometers
5. Balance board
6. Frog breathing
7. Frenkel's exercise
8. Muscle tone
9. 10 repetitions maximum
10. Medicine ball

[LK 6271]

FEBRUARY 2017

Sub. Code: 6271

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Write in detail on Derived positions and its uses.
2. Define Passive movement. Discuss the indications, contra indications, technique, effects and uses of lower limb Passive movements.

II. Write notes on:

(8 x 5 = 40)

1. PNF techniques.
2. Mobility aids.
3. Exercises for in co-ordination.
4. Dynamic stretching.
5. Manual muscle testing of brachioradialis.
6. Bed rest complications.
7. Manual muscle testing for triceps.
8. Free exercise for elbow joint.

III. Short answers on:

(10 x 2 = 20)

1. Active assisted exercises.
2. Types of muscle contraction.
3. Rhythmic initiation.
4. Axillary crutch measurement.
5. Active quadriceps stretching.
6. Relaxed diaphragmatic breathing.
7. Weight cuffs.
8. Pelvic tilt.
9. Mc Queen PRE.
10. Goniometry.

[LL 6271]

AUGUST 2017

Sub. Code: 6271

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Define stretching, mention its types and explain the determinants of stretching.
2. Define massage. Explain the sequence/indications/contraindications for facial massage.

II. Write notes on: **(8 x 5 = 40)**

1. Chest manipulation types and uses.
2. Walking frame – types and uses.
3. Active - resistance test.
4. Complication of prolonged bed rest.
5. Grades for joint mobilization.
6. Stretch reflex.
7. Manual muscle testing for Hamstrings.
8. Effects and uses of passive movement.

III. Short answers on: **(10 x 2 = 20)**

1. End feel.
2. Types of Goniometer.
3. Define joint play.
4. Indication for passive movement.
5. Types of resisted exercises.
6. Muscle soreness.
7. Define range of motion.
8. Types of muscle contractures.
9. Define mobilization.
10. Crutch muscles.

[LM 6271]

FEBRUARY 2018

Sub. Code: 6271

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the causes for Incoordination. Explain in detail about the principles and progression of Frenkel's exercises.
2. Discuss the indications, contra indications, technique, effects and uses of Lower Limb Massage.

II. Write notes on:

(8 x 5 = 40)

1. Axes and planes.
2. Crutch walking.
3. Resisted exercises for hip flexors.
4. Hold relax technique.
5. Maintenance exercise for prolonged bed rest patients.
6. Re-education of scapular rotators.
7. Manual muscle testing for biceps.
8. Sternocleidomastoid stretch.

III. Short answers on:

(10 x 2 = 20)

1. Starting positions.
2. Muscle work.
3. Walkers.
4. Universal goniometer.
5. Shadow walking.
6. Breathing exercises.
7. Pulleys.
8. Crutch stance.
9. Define balance.
10. Angle of pull.

[LN 6271]

AUGUST 2018

Sub. Code: 6271

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Passive movement. Explain the principles, effects and uses of Passive movements.
2. Define joint mobilization. Explain the principles of joint mobilization and mobilization technique for shoulder joint.

II. Write notes on:

(8 x 5 = 40)

1. Delorms and Oxford technique for progressive resisted exercise.
2. Effects and uses of Effleurage.
3. Frenkle's exercise.
4. Effects and uses of breathing exercise.
5. Complications of prolonged bed rest patients.
6. Glossopharyngeal breathing.
7. Manual muscle testing – Quadriceps.
8. Determinants of stretching.

III. Short answers on:

(10 x 2 = 20)

1. Kneading.
2. Crutch measurement with shoes off.
3. Define contractures.
4. Define Goniometer.
5. Contraindication for stretching.
6. Define joint play.
7. Muscle power grading.
8. Swing to & swing through Gait.
9. Define clapping.
10. High velocity thrust.

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Stretching. Discuss the procedure of stretching of Hamstring in detail.
2. How will you reeducate the Quadriceps muscle power from grade 0 to grade 5?

II. Write notes on:

(8 x 5 = 40)

1. Prevention of deep vein thrombosis.
2. Assessment of coordination.
3. Effects of active movement.
4. Procedure of passive movement of wrist joint.
5. Segmental expansion exercise.
6. Vertical suspension.
7. Treatment of edema.
8. Assessment of range of supination and pronation of radioulnar joint.

III. Short answers on:

(10 x 2 = 20)

1. Tripod.
2. Types of wheelchair.
3. Pendular goniometer.
4. Static exercise.
5. Repetition maximum.
6. Open kinematic exercise.
7. Pelvic tilt.
8. Shaking technique.
9. Romberg test.
10. Swiss ball.

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. List out the complication of prolonged bedridden patients. Add a note on prevention and maintenance exercise for them.
2. Define manual muscle testing, indication and procedure for manual muscle testing scale.

II. Write notes on:

(8 x 5 = 40)

1. Goniometer and its parts.
2. Osteo-kinematics.
3. Passive stretching procedure for hamstring.
4. Muscle re-education chart.
5. PNF stretching.
6. Axillary Crutch measurement.
7. Modes of resisted exercise.
8. Suspension therapy and its uses.

III. Short answers on:

(10 x 2 = 20)

1. Muscle soreness.
2. Active stretching.
3. End feel.
4. 1 RM (Repetition Maximum).
5. Quadriceps arc exercise.
6. Transverse friction massage.
7. Uses of walker.
8. Functional re-education.
9. Uses of fundamental position.
10. Endurance training.

[LQ 6271]

FEBRUARY 2020

Sub. Code: 6271

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION**

Q.P. Code : 746271

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss the indications, procedure and effects of Progressive Resisted exercises.
2. Explain about mobility aids. Write down the procedure of gait training with axillary crutches.

II. Write notes on:

(8 x 5 = 40)

1. Effects of joint mobilization.
2. Principles of Goniometry.
3. Diaphragmatic breathing exercise.
4. Prevention of Pressure sore.
5. Contraindications of Massage.
6. Balance assessment.
7. Self stretching of Trapezius.
8. Types and effects of Passive movement.

III. Short answers on:

(10 x 2 = 20)

1. Reeducation board.
2. Arthrokinematics.
3. Uses of axial suspension.
4. Theraband.
5. Disuse atrophy.
6. Stroking technique.
7. Close packed position.
8. Aerobic exercise.
9. Pulleys.
10. Principles of Frenkel's exercise.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6271

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER IV - EXERCISE THERAPY II – INCLUDING SOFT TISSUE
MANIPULATION
*Q.P. Code : 746271***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Muscle Re-education. Explain the principles and Re-education for Quadriceps muscle.
2. Define Breathing exercise. Explain in detail about the types of breathing exercise and its effects and uses.

II. Write notes on:

(8 x 5 = 40)

1. Convex-concave rule.
2. Suspension therapy – its types and uses.
3. Axillary crutch.
4. Effects and uses of kneading.
5. Grades of Joint mobilization.
6. Resisted exercise – types and uses.
7. Principles of passive movement.
8. Sequence for back massage.

III. Short answers on:

(10 x 2 = 20)

1. Repetition maximum.
2. Effleurage.
3. Define balance.
4. Define crutch line.
5. End feel.
6. Define stretching.
7. Electro goniometer.
8. Define joint play.
9. Uses of walker.
10. Muscle soreness.

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

[LP 6279]

AUGUST 2019

Sub. Code: 6279

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER IV - EXERCISE THERAPY II

Q.P. Code : 746279

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the basis of classification and therapeutic uses of Massage. List down the local and general contraindications of Massage.
2. Define Chest physical therapy. Discuss the general principles, indications, goals and precautions of breathing exercises.

II. Write notes on:

(10 x 5 = 50)

1. Principles of Transverse Friction.
2. Indications of Chest manipulations and its effects and uses.
3. Types of Stretching.
4. Principles and uses of Goniometry measurement.
5. Pendular Suspension therapy.
6. Maintenance exercise for patients on Prolonged Bed Rest.
7. Traction Parameters.
8. Non- Equilibrium Tests for Co-ordination.
9. Value of Group exercise.
10. PNF-Arm Patterns.

III. Short answers on:

(10 x 2 = 20)

1. Draping.
2. Stance of Therapist.
3. Agonist and Antagonist.
4. Myostatic Contracture.
5. Define Suspension therapy.
6. Pulley Rope.
7. Positional Traction.
8. Equilibrium.
9. Centre of Gravity.
10. Functional reach test.

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER IV - EXERCISE THERAPY II

Q.P. Code : 746279

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Define Massage. Describe the mechanical points to be considered while giving massage. List down the endangerment sites for the massage.
2. Describe PNF and its components. Explain the method of application.

II. Write notes on:

(10 x 5 = 50)

1. Components of massage.
2. Physiological effects of massage on muscular system.
3. Role of massage in sports.
4. Passive stretching for Piriformis.
5. Diaphragmatic breathing exercise.
6. Goniometric evaluation of Elbow joint.
7. Suspension therapy for Knee joint.
8. Frenkel's exercise in sitting and walking.
9. Types of End feel and its therapeutic importance.
10. Rhythmic initiation.

III. Short answers on:

(10 x 2 = 20)

1. Ideal hand for massage.
2. Normal range of motion of hip joint.
3. Postural Hypotension.
4. Uses and indications for Glossopharyngeal breathing.
5. Stretch reflex.
6. Ballistic stretching.
7. Causes of balance disorder.
8. Rebound test.
9. Group versus individual exercise.
10. Repeated contractions.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6279

**BPT DEGREE EXAMINATION
SECOND YEAR
(New regulations for the candidates admitted from 2017-2018 onwards)
PAPER IV - EXERCISE THERAPY II
Q.P. Code : 746279**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. How will you prevent and treat the prolonged bed rest complications?
2. What are the principles of Goniometry? Describe the procedure of assessment of hip range of motion with diagram.

II. Write notes on:

(10 x 5 = 50)

1. Sports massage.
2. Indications and Contra indications of stretching.
3. Tests for co-ordination.
4. Advantages & Disadvantages of Suspension therapy.
5. Diaphragmatic breathing exercise.
6. Crutch measurements.
7. History of massage.
8. Principles of Passive movements.
9. Trapezius stretching.
10. Parameters of traction.

III. Short answers on:

(10 x 2 = 20)

1. Boggy end feel.
2. Theraband exercises.
3. Ataxia.
4. Positional traction.
5. Muscle spindle.
6. Indications for Glossopharyngeal breathing.
7. Define Edema.
8. Inclometers.
9. Axial suspension.
10. Assessment of pronation range of motion.

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

[BPT 0921]

**SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)**

Sub. Code: 6279

**BPT DEGREE EXAMINATION
SECOND YEAR
(Regulations for the candidates admitted from 2017-2018 onwards)
PAPER IV - EXERCISE THERAPY II
*Q.P. Code : 746279***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the classification of massage and the physiological effects of massage on various body systems.
2. Describe the indications, principles and procedure of Frenkel's exercise.

II. Write notes on:

(10 x 5 = 50)

1. Techniques of chest physiotherapy.
2. Axial suspension.
3. Effects and uses of breathing exercise.
4. Determinants of stretching.
5. Ice massage.
6. Procedure or steps in joint range measurement.
7. Inspiratory hold.
8. Mechanism of action of traction.
9. PNF patterns for Upper Extremity.
10. Stretch Reflex.

III. Short answers on:

(10 x 2 = 20)

1. Wooden cleat.
2. Fibrositis.
3. Oedema.
4. Stroking.
5. Radical Mastectomy.
6. Hall pike test.
7. Dynamic balance exercise.
8. Types of Goniometer.
9. Costal breathing.
10. Agonist & Antagonist.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6279

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR- (Regulation from 2017-2018 onwards)
PAPER IV - EXERCISE THERAPY - II
*Q.P. Code : 746279***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the indications, contra indications, technique, effects and uses of Back Massage.
2. Define Breathing exercise. Explain in detail about the types of breathing exercise and its effects and uses.

II. Write notes on:

(10 x 5 = 50)

1. PNF techniques.
2. Types of Goniometers.
3. Guthrie Smith apparatus.
4. Dynamic Stretching.
5. Mobility Aids.
6. Principles of Chest physiotherapy.
7. Bed rest complications.
8. Importance of Group exercises.
9. Indications and Contraindications of Traction.
10. Points to be considered during massage.

III. Short answers on:

(10 x 2 = 20)

1. Radical mastectomy.
2. Reciprocal inhibition.
3. End feel.
4. Axial suspension.
5. Efflurage.
6. Percussion.
7. Normal Range of motion of Ankle.
8. Manual traction.
9. Antagonist.
10. Verbal commands.

[KZ 6255]

Sub. Code : 6255

**BACHELOR OF PHYSIOTHERAPY EXAMINATION
SECOND YEAR
PAPER I – GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS
Q.P. Code : 746255**

Time : Three hours

Maximum : 100 marks

ANSWER ALL QUESTIONS

I. LONG ESSAYS

(2X20=40)

1. Classify bleeding disorders. Discuss the clinical features, diagnosis and management of Hemophilia.
2. Describe growth and development of a child at five years of age including physical, adoptive and social development.

II. SHORT NOTES

(8X5=40)

1. Gestational Diabetes.
2. Skin grafting in burns.
3. Criteria of multiple sclerosis diagnosis.
4. Osteoarthritis diagnosis and treatment.
5. Drug therapy of infective endocarditis.
6. Lung abscess.
7. Varicella Zoaster infection.
8. Hepatitis B prophylaxis.

III. SHORT ANSWERS

(10X2=20)

1. Definition of Asthma.
2. Four criteria of SLE.
3. Auscultation of atrial septal defect.
4. Causes of intracerebral haemorrhage.
5. Symptomatic bacteriuria.
6. Complications of Thyroidectomy.
7. Muscle flap surgery.
8. Squint.
9. Types of spinal muscular atrophy.
10. Macrovascular complications and Diabetes Mellitus.

[LA 6255]

February 2012

Sub. Code: 6255

BACHELOR OF PHYSIOTHERAPY EXAMINATION
SECOND YEAR
PAPER I – GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS
Q.P. Code: 746255

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2X20=40)

1. Define and discuss clinical features, diagnosis and management of Chronic Obstructive Pulmonary Disease.
2. Define burns and discuss the etiology, clinical features and management.

II. Write notes on:

(8X5=40)

1. Classification of Cerebral Palsy.
2. Community acquired pneumonia.
3. Secondary hypertension.
4. Polyarthritis nodosa.
5. Clinical features and management of Parkinsonism.
6. Breast reconstruction.
7. Blindness in paediatric population.
8. Transverse myelitis.

III. Short Answers:

(10X2=20)

1. Maternal factors of High Risk pregnancy.
2. Care of colostomy.
3. Clinical features of Tabes dorsalis.
4. Scleroderma Types.
5. Drug therapy of pulmonary embolism.
6. Emphysema definition.
7. Antifilarial drug therapy.
8. Four occupational lung disorders.
9. Peripheral smear in Iron deficiency anaemia.
10. Polio prevention.

[LB 6255]

AUGUST 2012

Sub. Code: 6255

SECOND YEAR BPT EXAM

PAPER I – GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS

Q.P. Code: 746255

Time: Three Hours

Maximum: 100 marks

(180 Min) Answer ALL questions in the same order.

I. Elaborate on:

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

- | | | | |
|---|----|----|----|
| 1. Describe in detail the etiology, clinical features, diagnosis and management of osteoarthritis. | 19 | 33 | 20 |
| 2. What are the risk factors for deep vein thrombosis? Describe the clinical features of pulmonary embolism and briefly mention about its management. | 19 | 33 | 20 |

II. Write notes on:

- | | | | |
|---|---|---|---|
| 1. Tetanus. | 3 | 8 | 5 |
| 2. Define high risk pregnancy. | 3 | 8 | 5 |
| 3. Management of Ischaemic heart disease. | 3 | 8 | 5 |
| 4. Rickets. | 3 | 8 | 5 |
| 5. Pregnancy induced Hypertension. | 3 | 8 | 5 |
| 6. Treatment of lung abscess. | 3 | 8 | 5 |
| 7. Clinical features of scleroderma. | 3 | 8 | 5 |
| 8. German Measles. | 3 | 8 | 5 |

III. Short Answers:

- | | | | |
|--|---|---|---|
| 1. Define autoimmune disease. | 1 | 5 | 2 |
| 2. Neonatal factors contributing to high risk pregnancy. | 1 | 5 | 2 |
| 3. Care of colostomy. | 1 | 5 | 2 |
| 4. Gestational diabetes. | 1 | 5 | 2 |
| 5. Clinical features of TAO. | 1 | 5 | 2 |
| 6. Complications of mastectomy. | 1 | 5 | 2 |
| 7. PDA. | 1 | 5 | 2 |
| 8. Etiology of cerebral palsy. | 1 | 5 | 2 |
| 9. Types of diabetes. | 1 | 5 | 2 |
| 10. Pylonephritis. | 1 | 5 | 2 |

[LC 6255]

FEBRUARY 2013

Sub. Code: 6255

SECOND YEAR BPT EXAM

PAPER I – GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS

Q.P. Code: 746255

**Time: Three Hours
(180 Min)**

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Write in detail the etiology clinical features and complications of Rheumatoid arthritis.
2. Describe the various deformities resulting from burns. Outline the plastic surgery procedures and management in rehabilitation of burns including splinting methods for common deformity.

II. Write notes on:

(8X5=40)

1. Insulin in management of diabetes.
2. Complication of Bronchial asthma.
3. Febrile fits.
4. Decubitus ulcers.
5. Immunization schedule.
6. Obesity.
7. Megaloblastic anemia.
8. Complication of mastectomy.

III. Short Answers:

(10X2=20)

1. Clinical features in myasthenia gravis.
2. Oral hypoglycemic agents.
3. Blindness.
4. Etiology of hypertension.
5. VSD.
6. Microcephaly.
7. Drugs in SLE.
8. AIDS.
9. Incision in hernioraphy.
10. Squint.

[LD 6255]

AUGUST 2013

Sub. Code: 6255

SECOND YEAR BPT EXAM
PAPER –I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS
Q.P. Code : 746255

Time: Three hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Elaborate the clinical features, diagnosis and management of patients presenting with acute coronary syndrome (ACS). Explain in detail the role of physiotherapist in the rehabilitation of patients undergoing revascularization procedures for ACS.
2. Define bronchial asthma. Write an account on the aetiology, pathogenesis, patho physiology clinical features, staging of the disease based on the severity of bronchial asthma. Discuss the management principles of chronic persistent asthma. Mention the role of chest physiotherapy in the management of stable asthma.

II. Write Notes on:

(8X5=40)

1. Differentiate acute and chronic renal failure. Briefly outline the management plan for both of them.
2. Clinical presentation and management of a patient with diabetes mellitus.
3. Osteoarthritis: Clinical presentation, pathology and management.
4. Iron deficiency anaemia: Clinical features, causes and management.
5. Mastectomy: Indications, surgical techniques and potential per operative complications.
6. Immunization schedule.
7. Parkinson's disease: Clinical features and diagnosis.
8. Classify severity of burns and degree of involvement.

III. Short Answers:

(10X2=20)

1. Mention four congenital heart diseases.
2. What is clubbing? Mention two pulmonary causes for clubbing.
3. Name the four first line drugs used to treat pulmonary tuberculosis.
4. Mention the clinical features of vitamin D deficiency in children and adults.
5. Myocardial infarction: What are the risk factors?
6. Mention four causes for pain in the right hypochondrial region.
7. Mention four causes for reduced physical development in children below 3 years.
8. Mention two causes for recurrent urinary tract infection in the elderly males.
9. Define bronchiectasis.
10. Mention the normal temperature, normal blood pressure, normal pulse rate and normal respiratory rate in healthy adult males.

[LE 6255]

FEBRUARY 2014
SECOND YEAR BPT EXAM
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS

Sub. Code: 6255

Q.P. Code : 746255

Time: Three hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Define Diabetes Mellitus. Discuss in detail about the clinical features, Investigation and Management of Type II Diabetes Mellitus.
2. Discuss in detail about the post operative complications and management of Mastectomy. Add a note in Breast Reconstruction.

II. Write Notes on:

(8X5=40)

1. Rules of Nine for assessment of Burns.
2. Drug Therapy Pulmonary Tuberculosis.
3. Biology of Aging.
4. National Immunisation programme.
5. Rheumatic fever.
6. Abdominal Hysterectomy.
7. Haemophilia.
8. Iron deficiency Anaemia.

III. Short Answers:

(10X2=20)

1. Tetanus prevention.
2. Febrile fits.
3. Nephrotic syndrome.
4. Meningism.
5. HIV (AIDS) Testing.
6. Hypertrophic scar.
7. Types of Abdominal Incision.
8. Suppurative Lung disease.
9. Body mass Index.
10. Types of cerebral palsy.

[LF 6255]

AUGUST 2014

Sub. Code: 6255

**SECOND YEAR / III & IV SEMESTER BPT EXAM
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS**

Q.P. Code : 746255

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X20=40)

1. Define diabetes mellitus. Discuss the classification, diagnosis, complications and management.
2. Discuss in detail the principles of tendon transfer surgeries. Give emphasis on the tendon transfers in hand and foot.

II. Write Notes on:

(8X5=40)

1. Pedicle skin graft.
2. Incision and complications of cholecystectomy.
3. Polyarteritis nodosa.
4. Mitral stenosis-clinical findings and treatment.
5. Alzheimer disease-diagnosis and treatment.
6. Vitamin-D deficiency.
7. Growth and development of 5years old child.
8. HIV-AIDS diagnosis.

III. Short Answer:

(10X2=20)

1. Falls in elderly.
2. Senile osteoporosis.
3. Definition of Bronchiectasis.
4. Types of hydrocephalus.
5. Complications of prostatectomy surgery.
6. Type of bleeding disorders.
7. Name of four occupational lung diseases.
8. Components of Tetralogy of Fallot.
9. Potts spine.
10. Four causes of cataract.

[LG 6255]

FEBRUARY 2015

Sub. Code: 6255

**SECOND YEAR / III & IV SEMESTER BPT EXAM
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss the etiology, pathology, clinical features and management of Myocardial Infarction.
2. Define Cerebral Palsy. Discuss the causes, types, clinical features and management of Cerebral Palsy.

II. Write notes on:

(8 x 5 = 40)

1. Senile osteoporosis
2. Lung abscess
3. Immunization Schedule
4. Developmental mile stones
5. Pregnancy induced hypertension
6. Rickets
7. Complication of hernioraphy
8. Pott's spine

III. Short answers on:

(10 x 2 = 20)

1. Chronic bronchitis
2. ACA stroke
3. Dystonia
4. Hypostatic pneumonia
5. Risk factors for stroke
6. Malnutrition
7. Clinical features of muscular dystrophy
8. Keloid
9. Rheumatoid factor
10. Insulin

[LH 6255]

AUGUST 2015

Sub. Code: 6255

**B.P.T. DEGREE EXAMINATION
SECOND YEAR / III & IV SEMESTER**

PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND PAEDIATRICS

Q.P. Code: 746255

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on: **(2 x 20 = 40)**

1. Define stroke. Discuss etiology, pathology, clinical features and management of Cerebro Vascular Accident.
2. Discuss the causes, clinical features and management of Osteoarthritis Knee.

II. Write notes on: **(8 x 5 = 40)**

1. Bronchiectasis.
2. Complications of Appendicectomy.
3. Deep Vein Thrombosis.
4. Rheumatoid hand.
5. Complication of Cholecystectomy.
6. Acute severe Asthma.
7. Gestational Diabetes.
8. Falls in elderly.

III. Short Answers on: **(10 x 2 = 20)**

1. Gower's sign.
2. Muscle flap.
3. Types of Cataracts.
4. Emphysema.
5. PCA Stroke.
6. Causes for Cerebral Palsy.
7. Rheumatoid factor.
8. Incision for Thyroidectomy.
9. Blood supply to heart.
10. Funnel chest.

[LI 6255]

FEBRUARY 2016

Sub. Code: 6255

**SECOND YEAR BPT EXAMINATION
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Discuss the clinical features, pathology and management of Rheumatoid Arthritis.
2. Discuss the etiology, pathology, clinical features and management of COPD.

II. Write notes on: **(8 x 5 = 40)**

1. Myasthenia gravis.
2. Hemophilia.
3. Herpes zoster.
4. Primary complex.
5. Pigeon chest.
6. Kyphoscoliosis.
7. Bronchiectasis.
8. Fallot's Tetralogy.

III. Short answers on: **(10 x 2 = 20)**

1. MCA stroke.
2. Maternal causes for Cerebral Palsy.
3. Osteomalacia.
4. Type I Diabetes.
5. Chorea.
6. Rule of Nine in burns assessment.
7. Absence seizure.
8. Skin flap.
9. Barrel chest.
10. AIDS.

[LJ 6255]

AUGUST 2016

Sub. Code: 6255

**SECOND YEAR BPT EXAMINATION
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Pulmonary Tuberculosis. Describe the etiology, pathology, clinical features, investigations and treatment of Pulmonary Tuberculosis.
2. Define Myocardial Infarction and discuss the causes, clinical features, investigation and management of Myocardial Infarction.

II. Write notes on:

(8 x 5 = 40)

1. Hepatitis-B.
2. Megaloblastic anaemia.
3. Acute pyelonephritis.
4. Complication of splenectomy.
5. Surgery in obesity.
6. Scalds.
7. Pregnancy induced hypertension.
8. Neonatal tetanus.

III. Short answers on:

(10 x 2 = 20)

1. Name of four congenital heart diseases.
2. Define chronic bronchitis.
3. Define cerebral palsy.
4. Four extra cardiac lesions of Rheumatic fever.
5. What is radical mastectomy?
6. Define tendon transfer operation.
7. Four causes of hydrocephalus.
8. Prevention of blindness in children.
9. Define Diabetes mellitus.
10. Features of Erb's palsy.

[LK 6255]

FEBRUARY 2017

Sub. Code: 6255

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Rheumatic fever. Discuss the etiology, clinical features, investigations and management of Rheumatic fever.
2. Define Cerebral Palsy. Describe the causes, clinical manifestations, investigations and treatment of Cerebral Palsy.

II. Write notes on:

(8 x 5 = 40)

1. Iron deficiency anemia.
2. Aspiration pneumonia.
3. Systemic Lupus Erythematosus.
4. Treatment of burns.
5. Thrombo Angitis Obliterans.
6. Colostomy.
7. Immunization schedule.
8. Rickets.

III. Short answers on:

(10 x 2 = 20)

1. Define stroke.
2. Bronchiectasis.
3. Body Mass Index.
4. Name four auto immune diseases.
5. Complications of Diabetes Mellitus.
6. Indications of hysterectomy.
7. Complications of Cholecystectomy.
8. Four features of primary complex.
9. Name four vitamin deficiency diseases.
10. Define Dystonia.

[LL 6255]

AUGUST 2017

Sub. Code: 6255

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Diabetes Mellitus. Describe the etiology, types, clinical features, diagnosis, complications and management of Diabetes Mellitus.
2. Define Rheumatoid Arthritis. Discuss causal factors, clinical manifestations, investigations and treatment of Rheumatoid Arthritis.

II. Write notes on:

(8 x 5 = 40)

1. Hospital acquired pneumonia.
2. Anti hypertensive drugs.
3. Hepatitis A.
4. Scleroderma.
5. Grandmal epilepsy.
6. Appendicectomy.
7. Pedicle skin graft.
8. Blindness in children.

III. Short answers on:

(10 x 2 = 20)

1. Define Hydrocephalus.
2. Prevention of polio by vaccines.
3. Complications of Urinary tract infection.
4. Cataract.
5. Causative organisms of Meningitis.
6. Effects of electrical burns.
7. Grading of blood pressure.
8. Complications of Thyroidectomy.
9. Patent Ductus Arteriosus (PDA).
10. Mental Retardation.

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

[LM 6255]

FEBRUARY 2018

Sub. Code: 6255

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY AND
PAEDIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define Burns. Describe the types, causes, pathophysiology, clinical assessment, management, deformities and plastic surgery correction procedures in Burns.
2. Define Muscular Dystrophy. Briefly describe the clinical features, and management of Acute Duchenne Muscular Dystrophy.

II. Write notes on:

(8 x 5 = 40)

1. Marasmus.
2. Heart failure.
3. Pigeon chest.
4. Ventricular Septal Defect (VSD).
5. Chicken pox.
6. Ileostomy.
7. Megaloblastic anemia.
8. Parkinsonism.

III. Short answers on:

(10 x 2 = 20)

1. Prevention of AIDS.
2. Athetosis.
3. Split-skin graft.
4. Pigeon chest.
5. Classify cerebral palsy.
6. Vitamin C deficiency.
7. Schedule of immunisation for diphtheria.
8. Clinical features of Still's disease.
9. Cyanosis.
10. Types of diabetes.

BPT DEGREE EXAMINATION
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY,
PAEDIATRICS AND GERIATRICS

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Describe the etiology, pathology and clinical features and management of Pulmonary Tuberculosis.
2. Briefly describe the etiology, clinical features and management of Acute Myocardial Infarction.

II. Write notes on: **(8 x 5 = 40)**

1. Rickets.
2. Pregnancy induced hypertension.
3. Patent Ductus Arteriosus (PDA).
4. Z-plasty.
5. Appendicectomy.
6. Etio-pathogenesis of Rheumatic fever.
7. Etiology and types (classification) of Cerebral Palsy.
8. Rule of nines in calculating area of burns.

III. Short answers on: **(10 x 2 = 20)**

1. Keloid.
2. Pectus excavatum.
3. Name four abdominal surgical incisions.
4. Schedule of immunization for Oral Polio Vaccine.
5. Four clinical features of heart failure.
6. Motor milestones in a one year old child.
7. Causes of falls in elderly.
8. Body mass index.
9. Causes of acute flaccid paralysis in children.
10. Pedicle graft.

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

[LO 6255]

FEBRUARY 2019

Sub. Code: 6255

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY,
PAEDIATRICS AND GERIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Describe the etiology, types, clinical features, diagnosis, complications, management and prevention of Tetanus.
2. Discuss the risk factors, clinical features, investigations and management of Cerebrovascular accident.

II. Write notes on:

(8 x 5 = 40)

1. German Measles.
2. Hemophilia.
3. Bronchiectasis.
4. Pulmonary Embolism.
5. Systemic lupus erythematosus.
6. Alzheimer's disease.
7. Colostomy.
8. Benign Prostatic Hyperplasia.

III. Short answers on:

(10 x 2 = 20)

1. Hypoglycemia.
2. Pernicious anemia.
3. Pigeon chest.
4. Rheumatic fever.
5. Fallot's Tetralogy.
6. Mastectomy.
7. Epilepsy.
8. Spina Bifida.
9. Gestational diabetes.
10. Deep vein Thrombosis.

[LP 6255]

AUGUST 2019

Sub. Code: 6255

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY,
PAEDIATRICS AND GERIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. What are the risk factors for Deep Vein Thrombosis? Describe the clinical features of pulmonary embolism and briefly mention about its management and prevention.
2. Discuss the clinical features, pathology and management of osteoarthritis and role of physiotherapy in Rehabilitation.

II. Write notes on: **(8 x 5 = 40)**

1. Chest Physiotherapy.
2. Heart failure.
3. Dushenne muscular dystrophy.
4. Acyanotic congenital heart diseases.
5. Prevention of poliomyelitis.
6. Cerebral palsy.
7. Iron Deficiency anemia.
8. Parkinsonism features.

III. Short answers on: **(10 x 2 = 20)**

1. Opportunistic infection in AIDS.
2. Chorea.
3. Split-skin graft.
4. Pigeon chest.
5. Criteria for SLE.
6. Vitamin D deficiency.
7. Blood transfusion.
8. Clinical Features of Motor neuron disease.
9. Alcoholism.
10. Type 2 diabetes diagnosis.

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY,
PAEDIATRICS AND GERIATRICS**

Q.P. Code : 746255

Time: Three hours

Maximum: 100 Marks

I. Elaborate on: **(2 x 20 = 40)**

1. Define Diabetes Mellitus. Describe the etiology, types, clinical features, diagnosis, complication and management of Diabetes Mellitus and role of physiotherapy in neurological complication.
2. Discuss the etiology, pathology, clinical features and management of Bronchial Asthma including chest physiotherapy.

II. Write notes on: **(8 x 5 = 40)**

1. Hospital acquired pneumonia.
2. Epilepsy types and management.
3. Hepatitis C.
4. Scleroderma.
5. Bell's palsy management and physiotherapy.
6. Acute abdomen.
7. Skin graft.
8. Proximal muscle weakness in children.

III. Short answers on: **(10 x 2 = 20)**

1. CSF examination.
2. Polio vaccination.
3. Complications of Urinary tract infection.
4. Haemodialysis indications.
5. Diastasis recti.
6. Name four Bleeding disorders.
7. Secondary hypertension causes.
8. Complications of Thyroidectomy.
9. Atrial Septal Defect (ASD).
10. Investigations for HIV.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6255

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER I – GENERAL MEDICINE / GENERAL SURGERY / PAEDIATRICS /
GERIATRICS
*Q.P. Code : 746255***

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Discuss in detail about Abdominal surgery, its incisions and physiotherapy.
2. Define Cerebral Palsy. Describe the types, causes, clinical manifestations, investigations and treatment of Cerebral Palsy and role of physiotherapy.

II. Write notes on:

(8 x 5 = 40)

1. Urinary tract infections.
2. Clinical presentation and management of a patient with motor neuron disease.
3. Osteoarthritis and physiotherapy.
4. Haemophilia and Management.
5. Mastectomy: Indications, surgical techniques and potential per operative complication.
6. Encephalitis.
7. Classify severity of burns and degree of involvement.
8. Diabetic macro vascular complications.

III. Short answers on:

(10 x 2 = 20)

1. Mention four acyanotic congenital heart diseases.
2. What is cyanosis? Mention two pulmonary causes for cyanosis.
3. Name the four first line drugs used to treat pulmonary tuberculosis.
4. Mention the clinical features of Vit D deficiency in children and adults.
5. Modifiable risk factors for Myocardial Infarction.
6. Mention four causes for facial diplegia.
7. Mention four causes for lower motor lesion.
8. Mention four causes for acute hepatitis.
9. Bronchiectasis features and role of physiotherapy.
10. Mention the normal temperature, normal blood pressure, normal pulse rate and normal respiratory rate in healthy adult males.

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

[BPT 0921]

SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)

Sub. Code: 6255

BPT DEGREE EXAMINATION
SECOND YEAR
PAPER I – GENERAL MEDICINE / GENERAL SURGERY / PAEDIATRICS /
GERIATRICS
Q.P. Code : 746255

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define stroke, discuss etiology, pathology clinical features and management of cerebrovascular accident?
2. What are the risk factors for deep vein thrombosis? Describe the clinical features of pulmonary embolism and briefly mention about its management and prevention.

II. Write notes on:

(8 x 5 = 40)

1. Nephrotic syndrome.
2. Causes of falls in elderly and its management.
3. German measles.
4. Colostomy.
5. Pedicle skin graft.
6. Scleroderma.
7. Anti hypertensive drugs.
8. Surgery in obesity.

III. Short answers on:

(10 x 2 = 20)

1. Define chronic bronchitis.
2. Four causes of hydrocephalus.
3. Name four congenital heart Disease.
4. Absence seizure.
5. Barrel chest.
6. Incision for thyroidectomy.
7. Pernicious anaemia.
8. Four criteria of Systemic Lupus Erythematosus.
9. Macro vascular complications of diabetes mellitus.
10. Mention four causes for pain in the right hypochondrial region.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6255

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR
PAPER I – GENERAL MEDICINE / GENERAL SURGERY / PAEDIATRICS /
GERIATRICS
Q.P. Code : 746255**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 20 = 40)

1. Define diabetes mellitus. Discuss in detail about the clinical features, investigations and management of type II Diabetes mellitus.
2. Discuss in detail the Principles of tendon transfer surgeries. Give emphasis on the tendon transfers in hand and foot.

II. Write notes on:

(8 x 5 = 40)

1. Development of milestones.
2. Pott's spine.
3. Falls in Elderly.
4. Hemophilia.
5. Senile Osteoporosis.
6. Pedicle skin graft.
7. Poly Arteritis nodosa.
8. Myasthenia gravis.

III. Short answers on:

(10 x 2 = 20)

1. Mention four Congenital Heart Diseases.
2. Mention four causes of pain in the right Hypochondriac Region.
3. Define Hypertension and Causes of hypertension.
4. Etiology of Cerebral palsy.
5. Body mass index.
6. Define Bronchiectasis.
7. Causes of Urinary tract Infection.
8. Clinical manifestations of Filariasis.
9. Complications of Chronic Bronchitis.
10. Microcephaly.

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY,
PAEDIATRICS AND GERIATRICS

Q.P. Code : 746276

Time: Three hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Define Diabetes Mellitus. Describe the etiology, types, clinical features, diagnosis, complication and management of Diabetes Mellitus and role of physiotherapy in neurological complication.
2. Discuss the etiology, pathology, clinical features and management of COPD including Physiotherapy.

II. Write notes on:

(10 x 5 = 50)

1. Hospital acquired pneumonia.
2. Epilepsy types and management.
3. Hepatitis B.
4. Scleroderma.
5. Bell's palsy management and physiotherapy.
6. Acute abdomen.
7. Skin graft.
8. Proximal muscle weakness in children.
9. Complications of measles.
10. Herpes zoster.

III. Short answers on:

(10 x 2 = 20)

1. CSF examination.
2. Polio vaccination.
3. Complications of Urinary tract infection.
4. Haemodialysis indications.
5. Deep vein thrombosis prevention.
6. Name four Bleeding disorders.
7. Secondary hypertension causes.
8. Complications of Thyroidectomy.
9. Ventricular septal defect (VSD).
10. Investigations to diagnose HIV.

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER – I GENERAL MEDICINE, GENERAL SURGERY,
PAEDIATRICS AND GERIATRICS

Q.P. Code : 746276

Time: Three hours

Maximum: 100 Marks

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

1. Elaborate the clinical features, diagnosis and management of patients presenting with Acute Coronary Syndrome (ACS). Explain in detail the role of physiotherapy in the Rehabilitation of patient.
2. Define Cerebral Palsy. Describe the types, causes, clinical manifestations, investigations and treatment of Cerebral Palsy and role of physiotherapy.

II. Write notes on: **(10 x 5 = 50)**

1. Differentiate Acute and Chronic Renal Failure. Briefly outline the management plan for both of them.
2. Clinical presentation and management of a patient with Motor Neuron disease.
3. Osteoarthritis and physiotherapy.
4. Haemophilia and management.
5. Mastectomy: Indications, surgical techniques and potential per operative complication.
6. Meningitis.
7. Bronchial Asthma and chest physiotherapy.
8. Classify severity of burns and degree of involvement.
9. Diabetic macro vascular complications.
10. Urinary tract infections.

III. Short answers on: **(10 x 2 = 20)**

1. Mention four cyanotic congenital heart diseases.
2. What is cyanosis? Mention two pulmonary causes for cyanosis.
3. Name the four first line drugs used to treat pulmonary tuberculosis.
4. Mention the clinical features of calcium deficiency in children and adults.
5. Modifiable risk factors for Myocardial Infarction.
6. Mention four causes for facial diplegia.
7. Mention four causes for lower motor lesion.
8. Mention four causes for acute hepatitis.
9. Bronchiectasis features and role of physiotherapy.
10. Mention the normal temperature, normal blood pressure, normal pulse rate and normal respiratory rate in healthy adult males.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6276

**BPT DEGREE EXAMINATION
SECOND YEAR**

**(New regulations for the candidates admitted from 2017-2018 onwards)
PAPER I – GENERAL MEDICINE / GENERAL SURGERY / PAEDIATRICS /
GERIATRICS
Q.P. Code : 746276**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe in detail about pathophysiology, clinical features, investigations and treatment for Chronic Renal Failure.
2. Describe the various manifestations of Mycobacterium Tuberculosis Infection and Detail about Pott's spine and the complications, methods of physiotherapy for Paraplegic patient.

II. Write notes on:

(10 x 5 = 50)

1. Gestational Diabetes.
2. Lung Abscess.
3. Chest Physiotherapy for Bronchial Asthma.
4. Cerebral Palsy.
5. Hemophilia.
6. Heart Failure.
7. Polymyositis.
8. Acute Meningitis.
9. Classify severity of burns and degree of involvement.
10. Osteoarthritis and physiotherapy.

III. Short answers on:

(10 x 2 = 20)

1. Rheumatoid Arthritis in Pregnancy.
2. Safe Blood Transfusion methods.
3. Myasthenic Crisis.
4. Prophylaxis for Deep Vein Thrombosis.
5. Diabetic Neuropathy.
6. Dermatomyositis.
7. Ventricular Septal Defect.
8. Acute Memory Loss.
9. Chicken Pox.
10. Neurosyphilis.

[BPT 0921]

SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)

Sub. Code: 6276

BPT DEGREE EXAMINATION
SECOND YEAR
(Regulations for the candidates admitted from 2017-2018 onwards)
PAPER I – GENERAL MEDICINE / GENERAL SURGERY / PAEDIATRICS /
GERIATRICS
Q.P. Code : 746276

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

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

1. Define Rheumatoid Arthritis. Discuss causal factors, clinical manifestations, investigations and treatment of Rheumatoid Arthritis.
2. Define stroke. Discuss etiology, pathology, clinical features and management of Cerebro Vascular Accident.

II. Write notes on: (10 x 5 = 50)

1. Dushenne muscular dystrophy.
2. Falls in elderly.
3. Megaloblastic anaemia.
4. Appendicectomy.
5. Pigeon chest.
6. Hepatitis A.
7. Marasmus.
8. Systemic Lupus Erythematosus.
9. Indications of hysterectomy.
10. Scalds.

III. Short answers on: (10 x 2 = 20)

1. Blood supply to heart.
2. Chorea.
3. Name four vitamin deficiency diseases.
4. Osteomalacia.
5. Define tendon transfer operation.
6. Body Mass Index.
7. Prevention of AIDS.
8. Grading of blood pressure.
9. Causative organisms of Meningitis.
10. Emphysema.

[BPT 0122]

JANUARY 2022
(AUGUST 2021 EXAM SESSION)

Sub. Code: 6276

BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR (Regulations from 2017-2018 onwards)
PAPER I – GENERAL MEDICINE / GENERAL SURGERY / PAEDIATRICS /
GERIATRICS
Q.P. Code : 746276

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe in detail about aetiology, patho physiology clinical features and management of Bronchiectasis including chest physiotherapy.
2. Describe the etiopathology of varicose veins of the legs and its clinical features, Complications, investigations and Management.

II. Write notes on:

(10 x 5 = 50)

1. Heart failure.
2. Prevention of Poliomyelitis.
3. Hepatitis B.
4. Acute abdomen.
5. Z-plasty.
6. Parkinsonism.
7. Herpetic Neuralgia.
8. Antihypertensive drugs.
9. Thrombo Angitis Obliterans.
10. Marasmus.

III. Short answers on:

(10 x 2 = 20)

1. Fallot's Tetralogy.
2. Alcoholic hepatic Encephalopathy.
3. Indications of hysterectomy.
4. Grading of blood pressure.
5. Barrel chest.
6. Dystonia.
7. Keloid.
8. Diabetes mellitus type I.
9. Absence seizure.
10. Diastasis recti.

August 2011

[KZ 6258]

Sub. Code : 6258

**BACHELOR OF PHYSIOTHERAPY EXAMINATION
SECOND YEAR**

Paper IV – MICROBIOLOGY AND PATHOLOGY

Q.P. Code : 746258

Time : Three hours

Maximum : 100 marks

ANSWER ALL QUESTIONS

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. LONG ESSAYS (1X20=20)

1. Discuss about the different types of immunity and their mechanism.

II. SHORT NOTES (4X5=20)

1. Meningitis.
2. Tetanus.
3. Different types of Hypersensitivity.
4. Dry Heat Sterilization.

III. SHORT ANSWERS (5X2=10)

1. Define Infection.
2. Polio.
3. Prions.
4. Flagella.
5. Enteric fever.

**SECTION-B
(PATHOLOGY)**

I. LONG ESSAYS (1X20=20)

1. Give a detailed account on Auto immune diseases.

II. SHORT NOTES (4X5=20)

1. Write note on Embolism.
2. Discuss about the types of Gangrene.
3. Define Apoptosis and explain the mechanism.
4. Write note on pneumonia.

III. SHORT ANSWERS (5X2=10)

1. Emphysema.
2. Thrombosis.
3. Regeneration.
4. Metastasis.
5. Myasthenia gravis.

February 2012

[LA 6258]

Sub. Code: 6258

BACHELOR OF PHYSIOTHERAPY EXAMINATION

SECOND YEAR

Paper IV – MICROBIOLOGY AND PATHOLOGY

Q.P. Code: 746258

Time : Three hours

Maximum : 100 marks

ANSWER ALL QUESTIONS

Section A and B must be answered in SEPARATE Answer Book

SECTION – A

(MICROBIOLOGY)

I. Elaborate on: (1 x 20 = 20)

1. Discuss in detail the physical and chemical method of Sterilization, its mode of action and application.

II. Write notes on: (4 x 5 = 20)

1. Diphtheria.
2. Nosocomial infection.
3. Serum Hepatitis.
4. Sources of Infection.

III. Short Answers: (5 x 2 = 10)

1. BCG.
2. Types of Antibody.
3. Symmetry of virus.
4. Lepromin Test.
5. Write any three Anaerobic Infections.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define inflammation. What are the types and signs of inflammation? Discuss the vascular events of acute inflammation. Add a note on primary wound healing.

II. Write notes on: (4 x 5 = 20)

1. Lobar pneumonia.
2. Types of necrosis.
3. Rickets.
4. Features of malignant tumors.

III. Short Answers: (5 x 2 = 10)

1. Primary complex.
2. Lepromatous leprosy.
3. Apoptosis.
4. Pericarditis.
5. Viral meningitis.

[LB 6258]

AUGUST 2012

Sub. Code: 6258

SECOND YEAR BPT EXAM

Paper IV – MICROBIOLOGY AND PATHOLOGY

Q.P. Code: 746258

Time : Three hours

Maximum : 100 marks

(180 Min) Answer ALL questions in the same order.

Section A and B must be answered in SEPARATE Answer Book

SECTION – A

(MICROBIOLOGY)

I. Elaborate on:

Pages Time Marks

(Max.)(Max.)(Max.)

- | | | | |
|---|----|----|----|
| 1. Enumerate the sexually transmitted diseases and give a detail note on Gonorrhoea and AIDS. | 19 | 33 | 20 |
|---|----|----|----|

II. Write Notes on:

- | | | | |
|--|---|---|---|
| 1. Anaphylaxis. | 3 | 8 | 5 |
| 2. Tetanus. | 3 | 8 | 5 |
| 3. Enteric fever. | 3 | 8 | 5 |
| 4. Difference between Active and Passive immunity. | 3 | 8 | 5 |

III. Short Answer:

- | | | | |
|---------------------------|---|---|---|
| 1. Antigen. | 1 | 5 | 2 |
| 2. Disinfectant. | 1 | 5 | 2 |
| 3. Carrier. | 1 | 5 | 2 |
| 4. Crede's method. | 1 | 5 | 2 |
| 5. Example for RNA Virus. | 1 | 5 | 2 |

SECTION-B
(PATHOLOGY)

I. Elaborate on:

- | | | | |
|---|----|----|----|
| 1. Detailed discussion about Wound Healing. | 19 | 33 | 20 |
|---|----|----|----|

II. Write Notes on:

- | | | | |
|--|---|---|---|
| 1. Primary Tuberculosis. | 3 | 8 | 5 |
| 2. Characteristic features of Malignant tumours. | 3 | 8 | 5 |
| 3. Asthma. | 3 | 8 | 5 |
| 4. Gout. | 3 | 8 | 5 |

III. Short Answer:

- | | | | |
|--|---|---|---|
| 1. Red Infarct. | 1 | 5 | 2 |
| 2. Pathological Calcification. | 1 | 5 | 2 |
| 3. List out causes of Chronic Obstructive Pulmonary Diseases (COPD). | 1 | 5 | 2 |
| 4. Chronic Venous Congestion of liver (CVC liver). | 1 | 5 | 2 |
| 5. Four complications of Myocardial Infarction | 1 | 5 | 2 |

[LC 6258]

FEBRUARY 2013

Sub. Code: 6258

SECOND YEAR BPT EXAM

Paper IV – MICROBIOLOGY AND PATHOLOGY

Q.P. Code: 746258

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

Maximum : 100 marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1X20=20)

1. Give a detail account on AIDS.

II. Write Notes on: (4X5=20)

1. Describe the structure of bacterial spore.
2. Briefly explain about the different types of serological reactions.
3. Write note on urinary tract infection.
4. How will you classify virus.

III. Short Answer: (5X2=10)

1. Define capsule.
2. What are diptheroids?
3. Mantoux test.
4. What is meant by Anaphylaxis?
5. Hepatitis.

**SECTION-B
(PATHOLOGY)**

I. Elaborate on: (1X20=20)

1. Define cancer. Explain about different types of tumor, its pathogenesis and treatment.

II. Write Notes on: (4X5=20)

1. Briefly explain about ARDS.
2. Describe phagocytosis.
3. Discuss about various types of pneumonia.
4. Write note on Healing Process.

III. Short Answer: (5X2=10)

1. Hansen's diseases.
2. Typhoid.
3. Volkmann's Ischaemia.
4. Asthma.
5. Psoriasis.

[LD 6258]

AUGUST 2013

Sub. Code: 6258

SECOND YEAR BPT EXAM

PAPER IV – MICROBIOLOGY AND PATHOLOGY

Q.P. Code : 746258

Time: Three Hours

Maximum: 100 marks

Section A and B must be answered in SEPARATE Answer Book

SECTION – A

(MICROBIOLOGY)

I. Elaborate on:

(1X20=20)

1. Enumerate the causative agents of Viral hepatitis. Discuss in detail the laboratory diagnosis of Hepatitis B.

II. Write Notes on:

(4X5=20)

1. Type 1 hypersensitivity reaction.
2. ELISA
3. Mode of spread of infection.
4. Typhoid fever.

III. Short Answer:

(5X2=10)

1. Draw the diagram and label the HIV virus.
2. Name two organisms causing meningitis.
3. Mention two auto immune diseases.
4. Name two transport media for Vibrio Cholera specimens.
5. Mention two antigen antibody reactions.

SECTION – B

(PATHOLOGY)

I. Elaborate on:

(1X20=20)

1. Define necrosis. Mention the types. Explain the causes and pathology of each type of necrosis.

II. Write Notes on:

(4X5=20)

1. Define Gangrene. Mention the difference between dry and wet gangrene.
2. Pathogenesis of septic shock.
3. Rheumatic heart disease.
4. Lobar pneumonia.

III. Short Answer:

(5X2=10)

1. Heart failure cells.
2. Types of leprosy.
3. White infarct.
4. Wet gangrene.
5. Ankylosing spondylosis.

[LE 6258]

FEBRUARY 2014

Sub. Code: 6258

SECOND YEAR BPT EXAM

PAPER V – MICROBIOLOGY AND PATHOLOGY

Q.P. Code : 746258

Time: Three Hours

Maximum: 100 marks

Section A and B must be answered in SEPARATE Answer Book

SECTION – A

(MICROBIOLOGY)

I. Elaborate on:

(1X20=20)

1. Enumerate organisms causing food poisoning. Write about the pathogenesis and lab. diagnosis of Vibrio Cholera.

II. Write Notes on:

(4X5=20)

1. Active Immunity.
2. Moist heat sterilization.
3. Hospital acquired infections.
4. Opportunistic infections in HIV.

III. Short Answer:

(5X2=10)

1. Name two polio vaccines.
2. Give two examples of acid fast bacilli.
3. Flagella.
4. Name four organisms causing wound infections.
5. Define sterilization.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on:

(1X20=20)

1. a.) Healing by primary and secondary intention.
b) Factors influencing wound healing
c) Complications of wound healing.

II. Write Notes on:

(4X5=20)

1. Myasthenia gravis.
2. Pulmonary edema
3. Fracture healing
4. Benign tumours.

III. Short Answer:

(5X2=10)

1. Gout.
2. Tuberculoid leprosy.
3. Gangrene.
4. Dysplasia.
5. Teratoma.

[LF 6258]

AUGUST 2014

Sub. Code: 6258

**SECOND YEAR BPT EXAM
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three Hours

Maximum: 100 marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1X20=20)

1. Define Immunity, classify the various types and write in detail about natural Immunity.

II. Write Notes on: (4X5=20)

1. Draw a diagram of bacterial cell.
2. Gram stain.
3. Auto clave.
4. Urinary tract infection.

III. Short Answer: (5X2=10)

1. Define infection.
2. Nosocomial infection.
3. Define respiratory tract infection.
4. Oral thrush.
5. Polio vaccine.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1X20=20)

1. Define Osteoarthritis. Describe etiology, Pathogenesis and features of Rheumatoid arthritis.

II. Write Notes on: (4X5=20)

1. Discuss Bronchiectasis.
2. Discuss Chemotaxis and Phagocytosis. Classify chemical Mediators.
3. Congenital heart disease.
4. TB Spine.

III. Short Answer: (5X2=10)

1. Parkinsonism.
2. Cor Pulmonale.
3. Atherosclerosis risk factors.
4. Myasthenia Gravis.
5. Osteoporosis.

[LG 6258]

FEBRUARY 2015

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define hypersensitivity. Describe in detail the types of hypersensitivity with suitable examples.

II. Write notes on: (4 x 5 = 20)

1. Bacterial cell Anatomy
2. Widal test
3. Antibiotic sensitivity tests
4. Human immune deficiency virus

III. Short answers on: (5 x 2 = 10)

1. Classify Bacteria on the Basis of shape
2. Structure of Endospore
3. Polio vaccine
4. Define Cross infection and Subclinical infection
5. Write the Koch's postulates

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Describe the atherosclerotic plaque. Write on the theories of pathogenesis of plaque formation.

II. Write notes on: (4 x 5 = 20)

1. Edema. Differences between Exudate and Transudate
2. Hypovolaemic shock
3. Rheumatic fever
4. Air or Gas embolism

III. Short answers on: (5 x 2 = 10)

1. Healing by second intention
2. Rheumatoid arthritis
3. Malignant tumours
4. Paradoxical embolus
5. Caseous necrosis

BPT DEGREE EXAMINATION

SECOND YEAR

PAPER V – MICROBIOLOGY AND PATHOLOGY

Q.P. Code: 746258

Time : Three Hours

Maximum : 100 marks

**Section A and B must be answered in SEPARATE Answer Book
Draw suitable diagrams wherever necessary.**

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: **(1 x 20 = 20)**

1. What is Infection? Name the types of infection. Name the sources, mode of transmission and factors predisposing to microbial pathogenicity.

II. Write notes on: **(4 x 5 = 20)**

1. Sterilization and its types.
2. Delayed type hypersensitivity.
3. Antigenic structure of Streptococcus pyogenes.
4. Lab Diagnosis of Hepatitis B.

III. Short Answers on: **(5 x 2 = 10)**

1. Four differences between Gram +ve cell wall and gram –ve cell wall.
2. DPT Vaccine.
3. List four organisms causing Hospital Acquired Infection.
4. Draw the diagram and label parts of HIV.
5. Name four atypical mycobacteria.

**SECTION-B
(PATHOLOGY)**

I. Elaborate on: **(1 x 20 = 20)**

1. Define Emphysema. Enumerate the diseases producing central Air flow Obstruction. Describe in detail the pathogenesis of types of Emphysema.

II. Write notes on: **(4 x 5 = 20)**

1. Virchow's Triad.
2. Differences between benign and malignant tumours.
3. Apoptosis.
4. Chronic bronchitis.

III. Short Answers on: **(5 x 2 = 10)**

1. Lobar pneumonia.
2. Cerebral edema.
3. Osteo arthritis.
4. Gout.
5. Thrombosis.

[LI 6258]

FEBRUARY 2016

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on:

(1 x 20 = 20)

1. Enumerate the viruses causing hepatitis. Describe the morphology, clinical features, pathogenecity, laboratory diagnosis and prevention of Hepatits C Virus.

II. Write notes on:

(4 x 5 = 20)

1. Antigens of HIV.
2. Tissue culture.
3. Enrichment media.
4. Pathogenesis of *Corynebacterium diptheriae*.

III. Short answers on:

(5 x 2 = 10)

1. Widal test.
2. Oral thrush.
3. Herpes virus.
4. Route of egg inoculation.
5. Measles vaccine.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on:

(1 x 20 = 20)

1. Elaborate on Pneumonia. Enumerate the types of Pneumonia. Describe in detail about the pathogenesis, stages and complications of Pneumonia.

II. Write notes on:

(4 x 5 = 20)

1. Types of Necrosis.
2. Factors influencing wound healing.
3. Osteomyelitis.
4. Differences between Benign and Malignant Tumors.

III. Short answers on:

(5 x 2 = 10)

1. Primary complex in TB.
2. Polio.
3. Shock and types.
4. Gout.
5. Thrombosis.

[LJ 6258]

AUGUST 2016

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Describe the etiology, morphology, cultural characteristics, pathogenicity, laboratory diagnosis and prevention of Vibrio Cholera.

II. Write notes on: (4 x 5 = 20)

1. Laboratory diagnosis of Cornebacterium diphtheria.
2. PCR and its application.
3. How can the Virus be Isolated in the Laboratory?
4. Define antigen antibody reaction with suitable example.

III. Short answers on: (5 x 2 = 10)

1. Hot Air Oven.
2. Antibiotics.
3. Classification of viruses.
4. Name two pigment producing bacteria.
5. Cold sterilization.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Describe the process of Wound Healing. Enumerate the Factors that Influence Tissue Repair. Add a note on Fracture Healing.

II. Write notes on: (4 x 5 = 20)

1. Edema
2. Gangrene
3. Tuberculosis
4. GOUT

III. Short answers on: (5 x 2 = 10)

1. Angina Pectoris.
2. Myasthenia Gravis.
3. Types of Calcification.
4. Types of Emboli.
5. Osteomalacia.

[LK 6258]

FEBRUARY 2017

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Write in detail about morphology, cultural characteristics, antigenicity, pathogenesis and laboratory diagnosis of *Salmonella typhi*.

II. Write notes on: (4 x 5 = 20)

1. Autoclave.
2. ELISA.
3. Laboratory diagnosis of *Mycobacterium tuberculosis*.
4. Universal precautions.

III. Short answers on: (5 x 2 = 10)

1. Mode of transmission for HIV.
2. Oral candidiasis.
3. Bacterial growth curve-draw and label.
4. List four DNA viruses.
5. MMR vaccine.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. a) Chemical mediators of acute inflammation.
b) Add a note on sequelae of acute inflammation.

II. Write notes on: (4 x 5 = 20)

1. Characteristic features of reversible and irreversible cell injury.
2. Myasthenia gravis.
3. Osteoarthritis.
4. Secondary Tuberculosis.

III. Short answers on: (5 x 2 = 10)

1. How tissues of the body are grouped based on their proliferative activity?
2. Complications of Rheumatic fever.
3. Differences between necrosis and apoptosis.
4. Complications of wound healing.
5. Define embolism.

[LL 6258]

AUGUST 2017

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Hypersensitivity. Write the classification and write in detail about Type I hypersensitivity.

II. Write notes on: (4 x 5 = 20)

1. Anaerobic culture methods.
2. Prophylaxis of polio virus infection.
3. Antigenic structure of Staphylococcus Aureus.
4. Urinary tract infection.

III. Short answers on: (5 x 2 = 10)

1. Define Antigen and Antibody.
2. Name four bacteria causing Diarrhoea.
3. Mantoux test.
4. Draw and label the diagram of Hepatitis B virus.
5. Name four fungi causing Systemic mycoses.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. a) Cellular basis of atrophy.
b) Give examples for physiological and pathological atrophy including osteoporosis.

II. Write notes on: (4 x 5 = 20)

1. Bronchial Asthma.
2. Ankylosing Spondylitis.
3. Definition and types of Gangrene.
4. Thromboangitis obliterans.

III. Short answers on: (5 x 2 = 10)

1. Fate of thrombus.
2. Define shock.
3. Define infarction and name the types.
4. Osteomalacia.
5. Fate of atherosclerotic plaque.

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Draw diagram of HIV and label its parts. Write in detail about its morphology, mode of transmission, laboratory diagnosis and prophylaxis of HIV.

II. Write notes on: (4 x 5 = 20)

1. Hot air oven.
2. Acquired immunity.
3. Prophylaxis of Tetanus.
4. Epstein - Barr virus.

III. Short answers on: (5 x 2 = 10)

1. Ideal properties for a chemical disinfectant.
2. Immunoglobulin G.
3. Uses of ELISA.
4. VDRL test.
5. List four organisms causing urinary tract infection.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. a) Wound healing by primary and secondary intention.
b) Factors influencing repair.
c) Complications of wound healing.

II. Write notes on: (4 x 5 = 20)

1. Volkmann's ischaemic contracture.
2. Definition and classification of edema.
3. Etiology and pathogenesis of Bronchiectasis.
4. Tenosynovitis.

III. Short answers on: (5 x 2 = 10)

1. Define neoplasm.
2. Causative organism and classification of Leprosy.
3. Cardinal signs of acute inflammation.
4. Name the stages of inflammation in Lobar Pneumonia.
5. Define infarction and name the types.

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

[LN 6258]

AUGUST 2018

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Write in detail about sterilization by chemical methods.

II. Write notes on: (4 x 5 = 20)

1. Type IV Hypersensitivity.
2. Laboratory diagnosis of enteric fever.
3. Laboratory diagnosis of HIV.
4. Lab diagnosis of dengue and its prevention.

III. Short answers on: (5 x 2 = 10)

1. Name four bacteria causing UTI (Urinary Tract Infection).
2. Name four causative agents of Meningitis.
3. Enumerate four bacteria causing sexually transmitted diseases.
4. Name four Anaerobic bacteria.
5. Name the organisms causing Hospital Acquired Infections.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Inflammation. Describe in detail about the vascular changes associated with Inflammation.

II. Write notes on: (4 x 5 = 20)

1. Fat Embolism.
2. Osteomyelitis.
3. Vitamin D deficiency.
4. Myasthenia gravis.

III. Short answers on: (5 x 2 = 10)

1. Thrombosis.
2. Typhoid.
3. Volkmann's ischemia.
4. Red infarct.
5. Gout.

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

[LO 6258]

FEBRUARY 2019

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Antigen Antibody reactions. Enumerate the different types of Antigen antibody reactions.

II. Write notes on: (4 x 5 = 20)

1. Lab diagnosis of Tetanus.
2. Lab diagnosis of Mycobacterium Leprae.
3. Diseases caused by Different species of Pseudomonas.
4. Lab diagnosis of Corynebacterium diphtheria.

III. Short answers on: (5 x 2 = 10)

1. Cultivation of viruses.
2. Infections caused by Herpes Zoster.
3. Name two opportunistic infections in HIV.
4. Meningitis causing bacteria.
5. Classification of viruses.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Discuss in detail about the types of Shock. Stages of shock and pathogenesis of septic shock.

II. Write notes on: (4 x 5 = 20)

1. Lobar Pneumonia.
2. Rheumatic heart disease.
3. Foot protection in leprosy.
4. TB Spine.

III. Short answers on: (5 x 2 = 10)

1. Four common sites of atherosclerosis.
2. Granuloma.
3. Pannus.
4. Define Embolism.
5. Wet gangrene.

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Write in detail about Type IV Hypersensitivity.

II. Write notes on: (4 x 5 = 20)

1. Sterilization by Autoclaves.
2. Lab diagnosis of Viral disease.
3. Lab diagnosis of Cholera.
4. Lab diagnosis of Tuberculosis.

III. Short answers on: (5 x 2 = 10)

1. Hepatitis B Serological markers.
2. Name the virus and the vaccines of Measles.
3. Classify/enumerate Herpes viruses.
4. Name the types of Hepatitis viruses.
5. Name the organisms/bacteria causing Respiratory tract infection.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Tumor. Explain in detail about the different types of tumors, its pathogenesis and treatment.

II. Write notes on: (4 x 5 = 20)

1. ARDS.
2. Write a note on Healing process.
3. Tuberculosis.
4. Define Apoptosis and explain the mechanism.

III. Short answers on: (5 x 2 = 10)

1. Emphysema.
2. Iron deficiency Anaemia.
3. Haematuria.
4. Types of leprosy.
5. Name four auto Immune diseases.

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY**

Q.P. Code : 746258

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Hypersensitivity. Write about Type I Hypersensitivity in detail.

II. Write notes on: (4 x 5 = 20)

1. Moist heat sterilization.
2. Acquired immunity.
3. Measles virus.
4. Polio virus.

III. Short answers on: (5 x 2 = 10)

1. Oral Thrush.
2. Subclinical infection.
3. DPT Vaccine.
4. Give two examples for Type II Hypersensitivity.
5. VDRL Test.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Necrosis. Mention the types. Explain the causes and pathology of each type of Necrosis.

II. Write notes on: (4 x 5 = 20)

1. Fracture Healing.
2. Characteristics of malignant tumours.
3. Rheumatoid arthritis.
4. Bronchiectasis.

III. Short answers on: (5 x 2 = 10)

1. Pathophysiology of edema.
2. Complications of wound healing.
3. Examples for physiological and pathological atrophy.
4. Thromboangitis obliterans.
5. Clinical features of Parkinsonism.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6258

**BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY (SEC A& SEC B)
Q.P. Code : 746258**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Enumerate the causative agent of Viral hepatitis. Discuss in detail the laboratory diagnosis of hepatitis B.

II. Write notes on: (4 x 5 = 20)

1. Robert Koch's postulates.
2. Autoclave.
3. Precipitation reaction.
4. Widal test.

III. Short answers on: (5 x 2 = 10)

1. BCG.
2. Pili.
3. Draw the diagram and label the HIV virus.
4. Define sterilization.
5. Oral thrush.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Thrombosis – causes, pathophysiology and fate of the thrombus.

II. Write notes on: (4 x 5 = 20)

1. Osteoarthritis.
2. Muscular dystrophies.
3. Complications of wound healing.
4. Bronchial asthma.

III. Short answers on: (5 x 2 = 10)

1. Consequences of atherosclerotic disease.
2. Stroke.
3. Differences between benign and malignant tumours.
4. Rheumatoid arthritis.
5. Abscess.

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

[BPT 0921]

SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)

Sub. Code: 6258

BPT DEGREE EXAMINATION
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY (SEC A & SEC B)
Q.P. Code : 746258

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Discuss the physical methods of Sterilization. It's mode of action and application with suitable example.

II. Write notes on: (4 x 5 = 20)

1. Write a brief account on use of high temperature Sterilization.
2. Explain the preparation of culture medium.
3. Contributions of Robert Koch.
4. Cell line culture.

III. Short answers on: (5 x 2 = 10)

1. Differential medium.
2. Bacteriological filter.
3. Tyndalization.
4. Shapes of bacteria.
5. Louis Pasteur.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Shock. What are the types of Shock. Discuss the etiopathogenesis and morphology of Septic Shock.

II. Write notes on: (4 x 5 = 20)

1. Osteomyelitis.
2. Metastasis.
3. Primary Pulmonary Tuberculosis.
4. Gout.

III. Short answers on: (5 x 2 = 10)

1. Scurvy.
2. Differences between Acute and Chronic inflammation.
3. Coagulation Necrosis.
4. Name 4 Bone forming Tumours.
5. Chemical Carcinogens.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6258

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY (SEC A & SEC B)
Q.P. Code : 746258**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Describe in detail the morphology, pathogenesis and laboratory diagnosis of Human Immuno deficiency Virus.

II. Write notes on: (4 x 5 = 20)

1. Write a short notes on bacterial culture media.
2. Comments on working principle and uses of laminar air flow chamber.
3. Hospital Acquired Infection.
4. Describe the pathogenicity of Vibrio Cholerae.

III. Short answers on: (5 x 2 = 10)

1. Oral thrush.
2. Montoux test.
3. Crystallization of virus.
4. Epitope.
5. Selective media.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 20 = 20)

1. Define Necrosis. Discuss the different types of Necrosis with suitable examples.

II. Write notes on: (4 x 5 = 20)

1. Osteoarthritis.
2. Fracture Healing.
3. Bronchiectasis.
4. Type I Hypersensitivity.

III. Short answers on: (5 x 2 = 10)

1. Metaplasia.
2. Name four Granulomatous diseases.
3. Pseudogout.
4. Rickets.
5. Name four cartilage forming tumours.

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR
PAPER V – MICROBIOLOGY AND PATHOLOGY

Q.P. Code : 746280

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

SECTION – A
(MICROBIOLOGY)

I. Elaborate on: (1 x 15 = 15)

1. Write about the morphology, Pathogenesis and lab diagnosis of *Corynebacterium diphtheria*.

II. Write notes on: (5 x 5 = 25)

1. Write about Gram staining.
2. Write a note on Nosocomial Infections.
3. Describe Urinary tract infection and causative organisms involved.
4. Pathogenesis of Pulmonary Tuberculosis.
5. Lab diagnosis of *Vibrio cholera*.

III. Short answers on: (5 x 2 = 10)

1. What is a cold sterilization? Give example.
2. Mention two autoimmune diseases.
3. Name two transport media for *Vibrio cholera*.
4. What is window period in HIV infection?
5. Name the various disinfectants used in asepsis.

SECTION – B
(PATHOLOGY)

I. Elaborate on: (1 x 15 = 15)

1. Thrombosis – causes, pathophysiology and fate of the thrombus.

II. Write notes on: (5 x 5 = 25)

1. Complications of wound healing.
2. Bronchiectasis.
3. Differences between benign and malignant tumours.
4. Muscular dystrophies.
5. Necrosis – mechanisms and types.

III. Short answers on: (5 x 2 = 10)

1. Osteoarthritis.
2. Embolism.
3. Chemical mediators of inflammation.
4. Abscess.
5. Clinical features of Parkinsonism.

BPT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2017-2018 onwards)
SECOND YEAR

PAPER V – MICROBIOLOGY AND PATHOLOGY

Q.P. Code : 746280

Time: Three hours

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

SECTION – A
(MICROBIOLOGY)

I. Elaborate on: (1 x 15 = 15)

1. Write about the Ultrastructure of bacteria in detail with a neat labelled sketch.

II. Write notes on: (5 x 5 = 25)

1. Write a note on Dry heat sterilization.
2. Explain Acid fast staining technique.
3. Describe the structure of bacterial endospore.
4. Pathogenesis of Enteric fever.
5. Write a note on Herpes virus infection.

III. Short answers on: (5 x 2 = 10)

1. List four bacteria causing Diarrhoea.
2. WIDAL Test.
3. Write the Koch's postulates.
4. Define Iatrogenic infection with examples.
5. Give examples for the reaction of Type III hypersensitivity.

SECTION – B
(PATHOLOGY)

I. Elaborate on: (1 x 15 = 15)

1. a) Wound healing by primary and secondary intention.
b) Factors influencing repair.
c) Complications of wound healing.

II. Write notes on: (5 x 5 = 25)

1. Rheumatoid arthritis.
2. Bronchial asthma.
3. Features of malignant tumours.
4. Atrophy.
5. Cerebrovascular accidents.

III. Short answers on: (5 x 2 = 10)

1. Osteomalacia.
2. Virchow's triad.
3. Deep vein thrombosis.
4. Complications of Rheumatic heart fever.
5. Differences between necrosis and apoptosis.

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

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 6280

**BPT DEGREE EXAMINATION
SECOND YEAR
(New regulations for the candidates admitted from 2017-2018 onwards)
PAPER V – MICROBIOLOGY AND PATHOLOGY
Q.P. Code : 746280**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: **(1 x 15 = 15)**

1. Define Immunity, classify the various types and write in detail about natural Immunity.

II. Write notes on: **(5 x 5 = 25)**

1. Dry Heat Sterilization.
2. Tetanus.
3. Flagella.
4. Urinary tract infection.
5. Anaphylaxis.

III. Short answers on: **(5 x 2 = 10)**

1. Write the Koch's postulates.
2. Mantoux test.
3. Name two organisms causing meningitis.
4. Polio vaccine.
5. Disinfectant.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: **(1 x 15 = 15)**

1. Pneumonia - types, pathogenesis, stages and complications.

II. Write notes on: **(5 x 5 = 25)**

1. Myocardial Infarction – pathogenesis, features and complications.
2. Calcification.
3. Embolism.
4. Chronic inflammation – causes and types.
5. Necrosis – mechanisms and types.

III. Short answers on: **(5 x 2 = 10)**

1. Ankylosing spondylitis.
2. Septic shock.
3. Metastasis.
4. Two examples of autoimmune diseases with pathogenesis.
5. Atelactasis.

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

[BPT 0921]

SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)

Sub. Code: 6280

BPT DEGREE EXAMINATION
SECOND YEAR – (Regulations for the candidates admitted from 2017-2018 onwards)
PAPER V – MICROBIOLOGY AND PATHOLOGY
Q.P. Code : 746280

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

SECTION – A
(MICROBIOLOGY)

I. Elaborate on: (1 x 15 = 15)

1. Enumerate the etiology, pathogenesis and Lab diagnosis of anaerobic wound infection.

II. Write notes on: (5 x 5 = 25)

1. Meningitis.
2. Nagler reaction.
3. Herpes simplex virus.
4. ASO test.
5. Normal flora.

III. Short answers on: (5 x 2 = 10)

1. Enterotoxin.
2. Difference between plasma and serum.
3. Adjuvant.
4. Anaerobic medium.
5. Name two infections transmitted by blood and body fluid.

SECTION – B
(PATHOLOGY)

I. Elaborate on: (1 x 15 = 15)

1. Define Inflammation. Discuss the cellular events of inflammation.

II. Write notes on: (5 x 5 = 25)

1. Pagets disease of bone.
2. Gangrene.
3. Rheumatic Heart Disease.
4. Emphysema.
5. Chemical carcinogenesis.

III. Short answers on: (5 x 2 = 10)

1. Granulation tissue.
2. Complications of fracture healing.
3. Infarct.
4. Hypertrophy.
5. Osteogenic sarcoma.

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

[BPT 0122]

**JANUARY 2022
(AUGUST 2021 EXAM SESSION)**

Sub. Code: 6280

**BACHELOR OF PHYSIOTHERAPY DEGREE COURSE
SECOND YEAR- (Regulation from 2017-2018 onwards)
PAPER V – MICROBIOLOGY AND PATHOLOGY
Q.P. Code : 746280**

Time: Three hours

Answer ALL Questions

Maximum: 100 Marks

Section A and B must be answered in SEPARATE Answer Book

**SECTION – A
(MICROBIOLOGY)**

I. Elaborate on: (1 x 15 = 15)

1. Define pneumonia, write in detail about its etiology, pathogenesis and Lab diagnosis.

II. Write notes on: (5 x 5 = 25)

1. Structure of antibody.
2. Types of leprosy.
3. Measels.
4. Auto immunity.
5. Difference between Active immunity and passive immunity.

III. Short answers on: (5 x 2 = 10)

1. Cholera red reaction.
2. Hepatitis B Vaccination.
3. Autoclave holding time and temperature.
4. Application of Grams stain.
5. Herd immunity.

**SECTION – B
(PATHOLOGY)**

I. Elaborate on: (1 x 15 = 15)

1. Describe the stages of wound healing by primary intention. Enumerate the factors that influence wound healing. Write a note on fracture healing.

II. Write notes on: (5 x 5 = 25)

1. Types of embolism.
2. Myasthenia gravis.
3. Differences between benign and malignant tumours.
4. Osteomyelitis.
5. Cerebrovascular accidents.

III. Short answers on: (5 x 2 = 10)

1. Types of pathological calcification with mechanism.
2. Complications of myocardial infarction.
3. Rickets.
4. Parkinsonism.
5. Tuberculosis of spine.
