

[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.

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

[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.
