

Seat No. _____

Enrollment No. _____

THE CHARUTAR VIDYA MANDAL UNIVERSITY
BACHELOR OF PHYSIOTHERAPY – SEMESTER 3
APRIL 2026 (REGULAR) EXAMINATION

Course Title: Foundation of Exercise Therapy and Therapeutic Massage

Course Code: BPT-120

Total Printed Pages: 04

Date: 15/04/2026

Time: 10:00AM To 01:00PM

Maximum Marks: 80

Instructions:

1. There are total 4 Questions given in this paper.
2. All the answer should be written in the answer book.
3. Marks on the right side suggest the total marks of that question.
4. Draw the figure where necessary.

Q.1. Multiple Choice Questions: (MCQs)

(15 × 1 = 15)

1. **What is the primary objective of Exercise Therapy?**
 - a) To enhance pain sensitivity and discomfort perception
 - b) To improve overall physical function, strength and mobility
 - c) To permanently decrease muscle activation and reflex activity
 - d) To encourage prolonged immobilization of joints
2. **Which of the following is a fundamental starting position?**
 - a) Running
 - b) Crook lying
 - c) Jumping
 - d) Sprinting
3. **Which of the following is NOT a technique of Exercise Therapy?**
 - a) Active exercise
 - b) Passive exercise
 - c) Surgical intervention
 - d) Resisted exercise
4. **Which test is commonly used to assess muscle strength manually?**
 - a) ROM test
 - b) Manual Muscle Testing
 - c) Balance test
 - d) Coordination test

5. **True limb length is measured from which of the following landmarks?**
- ASIS to medial malleolus
 - Umbilicus to ankle
 - Greater trochanter to lateral malleolus
 - ASIS to patella
6. **Eccentric contraction refers to a condition in which the muscle does what?**
- Shortens while producing force
 - Lengthens while producing force
 - Does not produce any force
 - Contracts without tension
7. **Jacobson's progressive relaxation technique is mainly used to reduce what?**
- Muscle strength
 - Muscle relaxation deficit
 - Muscle tension and stress
 - Joint stiffness
8. **Passive movements are indicated when the patient is in which condition?**
- Has full voluntary control of movement
 - Is unable to actively move the joint
 - Requires resistance training
 - Needs endurance training
9. **Which of the following is NOT a type of active exercise?**
- Free exercise
 - Assisted exercise
 - Passive exercise
 - Resisted exercise
10. **Muscle endurance is defined as the ability to?**
- Generate maximum force once
 - Sustain repeated contractions over time
 - Produce fast movements
 - Maintain joint alignment
11. **In an open kinetic chain exercise, which of the following is correct?**
- The proximal segment remains fixed while the distal segment moves
 - The distal segment is fixed while the proximal segment moves
 - The distal segment moves freely in space
 - The entire body remains in a fixed position

12. Which condition is a contraindication for massage?

- a) Muscle weakness
- b) Acute inflammation
- c) Mild fatigue
- d) Postural imbalance

13. Which of the following is used to measure joint range of motion?

- a) Dynamometer
- b) Goniometer
- c) Spirometer
- d) ECG machine

14. Isometric exercise is characterized by?

- a) Muscle length changes with movement
- b) No change in muscle length
- c) Rapid joint movement
- d) Passive stretching only

15. Pulmonary function tests evaluate?

- a) Cardiac output
- b) Lung ventilation capacity
- c) Muscle coordination
- d) Joint mobility

Q. 2. Short answers (5 out of 7) (Answer not exceeding 50 words) (5 × 2 = 10)

- a. Name any two pulmonary function tests.
- b. What are the effects and uses of standing?
- c. Define axis and planes.
- d. Define true limb length.
- e. Define muscle strength and endurance.
- f. Define eccentric contraction?
- g. Define coordination?

Q. 3. Short Notes (5 out of 6) (Answer not exceeding 150 words) (5 × 5 = 25)

- a. Explain principles and techniques of active assisted exercises.
- b. Describe the principles of passive movements.
- c. Explain general and local contraindications for massage.
- d. Explain starting positions. Describe the muscle work of kneeling and sitting.
- e. Explain any four principles of manual muscle testing.
- f. Define goniometry and explain its principles and clinical importance.

Q. 4. Essay (3 out of 4)

(3 × 10 = 30)

- a. Explain Manual Muscle Testing (MMT). Describe its principles and technique for testing core muscles.
- b. Explain Passive Movements. Describe their classification, principles, indications, contraindications and therapeutic effects.
- c. Explain Relaxation. Describe Jacobson's progressive relaxation technique and its clinical importance in physiotherapy.
- d. Explain Resisted Exercises. Describe types such as isometric, concentric, eccentric and isokinetic exercises with their principles and clinical applications.