

BACHELOR OF PHYSIOTHERAPY (BPT)
SEMESTER -IV EXAMINATION, JUNE-2026

(BPT402) EXERCISE THERAPEUTICS - II

[Time allotted: Three Hours]

[Max Marks: 100]

Note: Read all the instructions carefully

Answer all questions in serial order. Draw suitable diagrams wherever necessary

Q. 1. Objective type questions: (Attempt All)

(10 x 02 = 20)

(Very short/ short answer/ MCQ/ One liners/ Fill in the blanks/ True/False)

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| <p>a. Frenkel's exercises are most commonly used for patients with:</p> <ol style="list-style-type: none"> Spasticity Hypotonia Ataxia Rigidity <p>b. The plumb line in ideal posture passes through all of the following except:</p> <ol style="list-style-type: none"> Slightly anterior to the knee joint Through the external auditory meatus Posterior to the ankle joint Center of the glenohumeral joint <p>c. The principle of irradiation in PNF refers to:</p> <ol style="list-style-type: none"> Use of external heat Overflow of neural excitation from stronger to weaker muscles Electrical stimulation of muscles Passive range of motion <p>d. Which type of suspension allows movement in all directions and reduces friction?</p> <ol style="list-style-type: none"> Vertical suspension Single-point suspension Axial suspension Universal suspension <p>e. Which hydrotherapy technique uses water agitation for muscle stimulation and relaxation?</p> <ol style="list-style-type: none"> Whirlpool bath Contrast bath Hubbard tank Sitz bath | <p>f. Delorme's principle is based on</p> <ol style="list-style-type: none"> Progressive repetition maximum No repetition Isolated movement Dynamic movement with same speed <p>g. Which manual therapy school emphasizes accessory and physiological movements using a biomechanical model?</p> <ol style="list-style-type: none"> McKenzie Mulligan Kaltenborn Osteopathy <p>h. Which of the following is not a limitation of group exercise therapy?</p> <ol style="list-style-type: none"> Less individual supervision Uniformity in program intensity Peer encouragement Difficulty in meeting individual goals <p>i. Which of the following is a contraindication for stretching?</p> <ol style="list-style-type: none"> Muscle tightness Soft tissue injury in the acute phase Postural deformity Warm-up before exercise <p>j. The Straight Leg Raise (SLR) test is used to assess tension in which nerve?</p> <ol style="list-style-type: none"> Femoral Radial Sciatic Median |
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Q. 2. Short notes/ Short answer type questions (Attempt any Five)

(05 x 04 = 20)

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| a. Write causes of impaired balance. | PO1/CO1 |
| b. Give two examples of specific exercise regimes used in musculoskeletal rehabilitation. | PO7/CO5 |
| c. Write down the indication for the Mulligan technique. | PO4/CO3 |
| d. What is the physiological response of the cardiovascular system during aerobic exercise? | PO8/CO1 |
| e. What are the indication and contraindication for MET? | PO2/CO3 |
| f. Name one upper limb and one lower limb task used during functional retraining. | PO5/CO4 |
| g. What is the principle behind the Kaltenborn technique of mobilization? | PO1/CO2 |

Q. 3. Structured questions (Attempt any Three)

(03 x 10 = 30)

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| a. Discuss physiological basis, determinants and techniques of stretching. | PO8/CO1 |
| b. Describe the different types of canes. Write their appropriate clinical uses. How does a quad cane differ from a standard cane? | PO6/CO3 |
| c. Compare and contrast axial and pendular suspension techniques. How does suspension alter muscle activity? How it alter joint loading? | PO2/CO4 |
| d. Define neurodynamic testing. What are indication and contraindication and list the common neurodynamic tests used in clinical practice. | PO4/CO4 |

Q. 4. Long Answer/ Essay type questions (Attempt any Two)

(02 x 15 = 30)

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| a. What are the biomechanical changes associated with faulty posture? List and describe common patterns of posture. | PO1/CO1 |
| b. Discuss the PNF techniques used to enhance stability, skill, and endurance. Mention their clinical applications with suitable examples. | PO9/CO5 |
| c. Define hydrotherapy. Explain the properties of water that make it beneficial for therapeutic use. List the goals and indications of hydrotherapy. | PO1/CO1 |