

End Semester (Semester II) Examination July 2022

Programme: Bachelor of Physiotherapy
Subject: Fundamental of Biomechanics & Exercise Therapy
Subject Code: 23A.204
Enrollment No: _____

Full Marks: 70
Time: 3 Hrs.

Section I

- 1. Short Answer type questions. Answer any four. 4 x 5 = 20**
- Give an analysis on the role of Gravity in mechanics of position with examples.
 - Discuss the role of Fixation and stabilization in exercise therapy.
 - Differentiate between “Righting reflex” and “Postural Reflex”.
 - Compare the Static and Dynamic Balance mechanism.
 - Give a contrast on Active vs. Passive Range of Motions.
 - Define and classify the Active movement in exercise therapy.

Section II

- Long Answer type questions. Answer any three. 3 x 10 = 30**
- Define Levers. Classify different orders of Levers with examples in human body.
 - Explain Pulley and the mechanical advantages of its types.
 - Elaborate the principles of giving Accessory Movement & its effect and uses.
 - Discuss the techniques of the Free Exercises and & its effect and uses.
 - Illustrate the Pelvic Tilt and maintenance of the Normal angles.

Section III

- Application based questions. Answer any one. 1 x 20 = 20**
- Explain the techniques of measuring the Thigh and Arm’s Girth.
 - Discuss the therapeutic indication and contraindication of therapeutic massage.
 - Explain the techniques and principles of Progressive Resistance Exercises.
 - Discuss the techniques of General Relaxations and its methods.
 - Elucidate the principles of Passive Manual Mobilizations and Manipulations.
 - Discuss the principles of giving Controlled Sustained stretching & its effect and uses.
