



**Abhinav Bindra Sports Medicine and Research Institute**  
**BPT Supplementary Internal Examination**

*3rd Sem .*

**Date:** 05. 02. 2026

**Time:** 09:00 AM-12:00 PM

**Question Code-**08

**Subject:** Biomechanics and Kinesiology

**F.M.:** 80 marks

**Subject Code-** 23ABP304

**Long Questions- Answer Any 3 (3 × 15 Marks)**

1. Explain anatomy of thoracic cavity with neat labelled diagram.
2. Explain the biomechanics behind respiratory movements.
3. Explain biomechanics of hip joint.
4. Explain the biomechanics of shoulder complex.
5. Explain biomechanics of knee complex.

**Short Questions- Answer all (6 × 5 Marks)**

6. Internal and external forces applicable to the human biomechanics
7. Anatomy of Ankle Joint
8. Force couple of shoulder joint
9. Pump handle movement
10. Explain angle of torsion and angle of inclination.
11. Screw home mechanism of knee joint
12. Osteo kinematics of hip joint

**13. Objective type Questions- Answer all (5 × 1 Mark)**

- a) Capitus fovea is \_\_\_\_\_
- b) Arthrokinematics is defined as \_\_\_\_\_
- c) Strongest ligament of hip joint is \_\_\_\_\_
- d) During Knee Flexion in supine tibia rotates \_\_\_\_\_
- e) Chief Inspiratory Muscle Name \_\_\_\_\_