

Second Year BPT Degree Supplementary Examinations - May 2015  
**(2010 Scheme)**

**BIOMECHANICS****Time : 3 hrs****Max marks : 100**

- Answer all questions
- Draw diagrams wherever necessary

**Essays****(2x10=20)**

1. Discuss the structure and function of the arches of the foot
2. Define lever. Explain the various orders of lever with examples

**Short notes****(10x5=50)**

3. Describe lumbo-pelvic rhythm
4. Explain in detail the biomechanics of sitting
5. Define force and describe the force of gravity
6. Explain creep and how does it affect joint structure and function
7. Describe in detail the biomechanics of rib cage movements
8. Explain in detail the factors affecting the mobility at the elbow joint
9. Explain the structure and function of the CMC joint of the thumb
10. Stability and mobility muscles with appropriate examples
11. Explain the function of meniscus in the knee joint
12. Explain concurrent and parallel force systems

**Answer briefly****(10x3=30)**

13. Stride length and step length
14. Postural control
15. Hallux valgus
16. Patella alta
17. Centre edge angle
18. Palmar arches
19. Carrying angle
20. Reverse Scapulohumeral rhythm
21. Temperomandibular ligament
22. Newton's Law of Inertia

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