First Year BPT Degree Examinations ,   September 2015

(2012 - Scheme)

Biomechanics and Kinesiology

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

- **Answer all questions**
- **Draw diagrams wherever necessary**

Essays: **(2x14=28)**

1. Name the components of shoulder complex. Explain the scapulo-humeral rhythm in detail. Add a note on dynamic stabilizers of the glenohumeral joint.   (2+8+4=14)

2. Define gait. Explain in detail about the phases of gait cycle in walking. Add a note on Sagittal plane motion analysis.   (2+8+4=14)

Short notes: **(4x8=32)**

3. Explain different planes of human joint motion. Add a note on angulation of femur in different planes.

4. Active insufficiency and passive insufficiency. Explain with appropriate examples.

5. Supination twist and pronation twist.

6. Role of disk in tempero-mandibular joint.

Answer briefly: **(10x4=40)**

7. Define linear displacement and angular displacement with example.

8. What are arthrokinematics and osteokinematics.

9. Pes cavus and pes planus.

10. Define torque.

11. Q- angle.

12. Young's modulus.

13. Ligament of bigelow.

14. Forward head posture.

15. Function of diaphragm in tidal breathing.

16. Atypical vertebrae of cervical spine.

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