

## **(2012 - Scheme)**

### **Biomechanics and Kinesiology**

**Time : 3 hrs**

**Max marks : 100**

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

**Essays:**

**(2x14=28)**

1. Explain the features, kinetics and kinematics of gait with a note on movement analysis
2. Elaborate on the structure and function of plantar arches and deviations from normal.

**Short notes:**

**(4x8=32)**

3. Mobility and stability functions of muscles
4. Explain levers with examples in human body
5. The effects of disease, injury and immobilization of joints
6. The structure and function of vertebral column

**Answer briefly:**

**(10x4=40)**

7. Equilibrium
8. Prehension
9. Dynamic posture
10. Sub talar joint
11. Moment arm of force
12. Elements of muscle structure
13. Inter vertebral discs
14. Carrying angle
15. Scapulohumeral rhythm
16. Metatarsal break

\*\*\*\*\*