

(2012 - Scheme)

Biomechanics and Kinesiology

Time : 3 hrs

Max marks : 100

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

Essays:

(2x14=28)

1. Define Posture. Describe The Various Postural Changes With Respect To Aging,Pregnancy And Occupation..
(2+4+4+4)
2. Define gait. Explain the phases of gait cycle. Add a note on pathological gait with one example.
(2+8+4= 14)

Short notes:

(4x8=32)

3. Explain the scapulo - humeral rhythm.
4. Explain the effects of immobilization
5. Explain the load deformation and stress-strain curve.
6. Explain the arthrokinematics of knee joint.

Answer briefly:

(10x4=40)

7. Active Insufficiency with example.
8. Genu varum and genu recurvatum
9. Lordosis
- 10.Assistive devices
- 11.Functions of palmar arch.
- 12.Newton's laws of motion.
- 13.Pes cavus and pes planus
- 14.Concurrent and parallel force system
- 15.Define friction and vector forces
- 16.Concentric muscle work with an example.
