

(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.
