

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM
(Deemed to be University)**

**M.P.T. DEGREE EXAMINATION – April 2019
First Semester**

BIO-MECHANICS AND KINESIOLOGY

Time: Three hours

Maximum : 100 marks

I. Write short answers on:

(10 x 2 = 20)

1. Nurse maid elbow
2. Internal forces
3. Young's modulus
4. Convex-concave principle
5. Coupling
6. Cadence
7. Pesplanus and pes cavus
8. Quadriceps lag
9. Annular pulleys
10. Trabeculae

II. Write short notes on:

(8 x 5 = 40)

11. Closed kinematic chain
12. Precision handling
13. Mechanical behavior of connective tissue
14. Effect of immobilization.
15. Lumbar pelvic rhythm
16. Medial collateral ligament and its stability on valgus forces.
17. Wrist instability
18. Angle of torsion of femur and its pathomechanics.

III. Write essays on:

(2 x 20 = 40)

19. Dynamic stabilization of shoulder joint and pathomechanics and rotator cuff impingement.
20. Explain classification of joints. Note on joint lubrication.