

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

**M.P.T. DEGREE EXAMINATION – November 2019
Second Semester**

BIOMECHANICS AND KINESIOLOGY

Time: Three hours

Maximum : 100 marks

I. Write short answers on:

(10 x 2 = 20)

1. Anatomical pulleys.
2. Define concurrent force system.
3. Hysteresis.
4. Co contraction.
5. Deep tendon reflex.
6. Attachment of thoracolumbar fascia.
7. Scapula humeral rhythm.
8. Perturbation.
9. Center of gravity.
10. Tenosynovitis.

II. Write short notes on:

(8 x 5 = 40)

11. Pathomechanics of trendelenburg gait.
12. Ergonomical analysis in IT industry.
13. Nutation and counter nutation.
14. Intervertebral disk.
15. Pathomechanics of winging of scapula.
16. Introsseus membrane (IOM).
17. Mechanism of finger flexion.
18. Educational program for prevention of injuries.

III. Write essays on:

(2 x 20 = 40)

19. Explain detail about Tibiofemoral kinematics.
20. Explain phases of gait cycle. Describe gait variables.