

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

**BACHELOR OF PHYSIOTHERAPY DEGREE EXAMINATION
FEBRUARY - 2021**

Second Year

BIOMECHANICS AND KINESIOLOGY

Time: Three hours

Maximum: 100 Marks

Answer **ALL** questions.

I. ESSAY: (2 x 20 = 40)

1. Describe the structure and function of vertebral column.
2. Discuss the function of shoulder complex including dynamic stability of Gleno-humeral joint.

II. SHORT NOTES: (8 x 5 = 40)

3. Stress and strain.
4. Classification of joints.
5. Anatomical pulleys.
6. Passive insufficiency.
7. Muscle activity of hip, knee, ankle in gait cycle.
8. Motions of patella.
9. Angulation of femur.
10. Subtalar supination and pronation twist.

III. SHORT ANSWERS: (10 x 2 = 20)

11. Difference between spurt and shunt muscles.
12. Angle of muscle pull.
13. Carrying angle.
14. Bursae around knee.
15. Define torque.
16. Dowager's hump.
17. Pars interarticularis.
18. Instantaneous axis of rotation.
19. Perturbation.
20. Juncture tendinae.
