THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LP 6157] AUGUST 2019 **Sub. Code : 6157**

BOT DEGREE EXAMINATION
(Regulations for the candidates admitted from 2010-2011 onwards)
SECOND YEAR
PAPER III – BIOMECHANICS APPLIED ANATOMY AND APPLIED PHYSIOLOGY

Q.P. Code: 786157

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. What is lever? Describe the different lever systems with suitable examples. Describe the lever systems in the human body.

2. Describe the biomechanics of Knee joint.

II. Write notes on: **(8 x 5 = 40)**

1. Describe kinematic variables.
2. Lumbopelvic rhythm.
3. Length – tension relationship of a muscle.
4. Types of joints.
5. Shoulder joint movements and the muscles contribution.
6. Biomechanics of pronation and supination in forearm.
7. Intrinsic muscles of the hand.
8. Position of line of gravity in the lower extremity joints in sagittal plane analysis.

III. Short answers on: **(10 x 2 = 20)**

1. Sway – back posture.
2. Pes caves and pes planus.
3. Angle of torsion.
4. Menisci.
5. Inter-vertebral disc.
6. Cadence.
7. Passive insufficiency.
8. Quadriceps lag.
9. Muscles of knee extension.
10. Precision.

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