

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

[MS 1223]

**DECEMBER 2023
(OCTOBER 2023 EXAM SESSION)**

Sub. Code: 2219

**M.S. DEGREE EXAMINATION
BRANCH II – ORTHOPAEDIC SURGERY
PAPER I – APPLIED BASIC SCIENCES IN ORTHOPAEDIC SURGERY**

Q.P. Code: 222219

Time: Three Hours

Maximum: 100 Marks

Write notes on:

I. ANATOMY (4 x 5 = 20)

1. Blood supply to the head of femur in an adult with a diagram.
2. Write about Martin Gruber Anastomosis.
3. Bundles of the anterior cruciate ligament.
4. Extensor compartments of the wrist.

II. PHYSIOLOGY (4 x 5 = 20)

1. Function of Sarcoplasmic Reticulum.
2. Neuromuscular Junction.
3. Nutrition of cartilage.
4. What is Gate Control Theory of pain?

III. BIOCHEMISTRY (3 x 5 = 15)

1. Cori Cycle.
2. 1,25(OH)₂D₃.
3. ATP.

IV. PHARMACOLOGY (3 x 5 = 15)

1. Biologics in Rheumatoid Arthritis treatment.
2. Triamcinolone.
3. Chemotherapy of Myeloma.

V. PATHOLOGY (3 x 5 = 15)

1. Pseudo Gout.
2. Tumour Markers.
3. Malignant Osteoid.

VI. MICROBIOLOGY (3 x 5 = 15)

1. Clostridium Perfringens.
2. Anaerobic Culture Media.
3. Epigenetic Mechanisms of Developing Drug Resistance.
