

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

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 3021

**M.D. DEGREE EXAMINATION
BRANCH XXVII - EMERGENCY MEDICINE
PAPER I – APPLIED BASIC SCIENCES RELATED TO
EMERGENCY MEDICINE**

Q.P. Code: 203021

Time : Three Hours

Maximum : 100 Marks

Write Notes on:

I. ANATOMY: (4 x 5 = 20)

1. Discuss in detail about Coronary circulation.
2. Triangle of safety and its importance.
3. Explain on Keisselbach's plexus and its importance in nasal bleeding.
4. Note on Portocaval anastomosis and its various anatomical sites.

II. PHYSIOLOGY: (4 x 5 = 20)

1. Explain about fluid compartments in the body.
2. Alveolar ventilation.
3. Pathophysiology of Cardiogenic shock.
4. Oxyhemoglobin dissociation curve.

III. BIO-CHEMISTRY: (3 x 5 = 15)

1. Metabolism of Ethanol and its toxicity.
2. Discuss the various causes for Normal anion gap metabolic acidosis.
3. Causes, diagnosis and treatment of Methemoglobinemia.

IV. PHARMACOLOGY: (3 x 5 = 15)

1. List the medications used for procedural sedation with their doses and complications.
2. Role of Magnesium Sulphate in Eclampsia.
3. Discuss the cause, signs and treatment of Local Anesthetic Toxicity.

V. PATHOLOGY: (3 x 5 = 15)

1. Stages of Wound healing.
2. Anticoagulant Reversal Strategies in the Emergency Department.
3. Pathophysiology of Acute Cholecystitis.

VI. MICROBIOLOGY: (3 x 5 = 15)

1. Note on Rabies vaccine and immunoglobulin.
2. Tetanus – Explain the pathogen and its mechanism of causing the disease.
3. Describe the etiology, presentation and treatment of Acute Pyelonephritis.
