

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

[MD 0522]

MAY 2022

Sub. Code: 2018

**M.D. DEGREE EXAMINATION
BRANCH V – PHYSIOLOGY**

**PAPER I – GENERAL PHYSIOLOGY, BLOOD, DIGESTION AND
TISSUES OF THE BODY**

Q.P. Code: 202018

Time : Three Hours

Maximum : 100 Marks

I. Essay Questions:

(2 x 15 = 30)

1. Describe the electrical activity in visceral smooth muscle. Add a note on plasticity in smooth muscle.
2. Describe the ionic basis of action potential. Add a note on compound action potential.

II. Short notes:

(10 x 5 = 50)

1. Osmotic red cell fragility.
2. Complement system.
3. Factors regulating gastric emptying.
4. Dietary fibre.
5. Adaptive control system.
6. Theories of Aging.
7. Types & characteristics of skeletal muscle fibres.
8. Minor blood groups.
9. Abnormal Hemoglobins.
10. Immune tolerance.

III. Reasoning Out:

(4 x 5 = 20)

1. Mechanism of sickling of red blood cell in hypoxia.
2. Pathophysiology of Dumping syndrome.
3. Physiological basis of Apoptosis.
4. Pathophysiology of Achalasia cardia.
