

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

[MD 0524]

MAY 2024

Sub. Code: 4013

M.D. DEGREE EXAMINATION

BRANCH V – PHYSIOLOGY

**PAPER I – GENERAL PHYSIOLOGY INCLUDING
HISTORY OF PHYSIOLOGY**

Q.P. Code: 204013

Time : Three Hours

Maximum : 100 Marks

I. Essay Questions: (2 x 15 = 30)

1. Write in detail about Electrophysiology of the cell membrane. Add a note on the voltage clamp.
2. Define Milieu Interior. Write elaborately the homeostatic mechanisms. Add a note on neuro endocrine reflex.

II. Short notes: (10 x 5 = 50)

1. Gene Expression regulation.
2. Catalytic receptors.
3. Mitochondria.
4. Structure – function relationship in proximal convoluted tubule.
5. Secondary active transport.
6. Sucrose space.
7. Theories of ageing.
8. Hagen Poiseuille law.
9. Micro anatomy of testis.
10. Banting and Best.

III. Reasoning Out: (4 x 5 = 20)

1. Paroxysmal nocturnal haematuria.
2. Receptor occupancy and pertussis toxin.
3. Role of Leukotrienes in disease.
4. Explain about factors limiting the rate of facilitated diffusion.
