

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

[MD 0524]

MAY 2024

Sub. Code: 4015

M.D. DEGREE EXAMINATION

BRANCH V – PHYSIOLOGY

PAPER III – SYSTEMIC PHYSIOLOGY

**(SYSTEM CONCERNED WITH REGULATION,
NEURAL CONTROL AND PROCREATION)**

Q.P. Code: 204015

Time : Three Hours

Maximum : 100 Marks

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

1. Describe the pain pathways and the endogenous analgesic systems.
2. With experimental and clinical evidence describe the hormonal interactions leading to the initiation and maintenance of lactation.

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

1. Dystrophin – glycoprotein complex.
2. Compound action potential.
3. What is refractory period? Mention its types.
4. Ghrelin and its clinical significance.
5. Feto-placental unit.
6. Muscle spindle.
7. Physiological basis of the therapeutic uses of cortisol.
8. Macula lutea.
9. Auditory pitch perception.
10. Implicit memory.

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

1. Explain the hyperphagia in diabetes mellitus stressing the role of hypothalamus.
2. What are the advantages of dual autonomic innervations?
3. Plant-derived arrow poison causes paralysis.
4. Conduction can occur in either along an axon but is only direction at a chemical Synaptic Junction.
