

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

**[MD 1022]**

**OCTOBER 2022**

**Sub. Code: 2020**

**M.D. DEGREE EXAMINATION**

**BRANCH V – PHYSIOLOGY**

**PAPER III – NERVOUS SYSTEM AND SPECIAL SENSES**

*Q.P. Code: 202020*

**Time : Three Hours**

**Maximum : 100 Marks**

**I. Essay Questions:**

**(2 x 15 = 30)**

1. Describe the regulation of muscle tone and its disturbances in various neurological disorders.
2. Describe the normal sleep cycle at various ages and discuss the neurochemical mechanisms of sleep and arousal. Add a note on sleep disorders.

**II. Short notes:**

**(10 x 5 = 50)**

1. Occlusion and subliminal fringe.
2. Functions of Glial cells.
3. Analgesic system in the brain.
4. Brown sequard syndrome.
5. Decerebrate and Decorticate rigidity.
6. Categorical and Representational hemisphere.
7. Discuss the lesions at different levels of visual pathway.
8. Endocochlear potential.
9. Describe the receptors for taste and smell.
10. Axonal regeneration.

**III. Reasoning Out:**

**(4 x 5 = 20)**

1. Oligodendrocytes are involved in pH regulation of the brain.
2. Comment on the tone in Cerebellar lesion.
3. Asymmetries in the size of left and right planum temporale.
4. Flight-or-Fight Response is massive and nonspecific.

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