

**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. a) Compare monosynaptic and polysynaptic reflexes.  
b) Explain dynamic and static Stretch reflex.  
c) Explain how unexpectedly heavy load is lifted using the mechanism at the spinal cord level?
2. a) Describe the functional nomenclature of cerebellum and  
b) intrinsic Circuit of cerebellum.  
c) Explain in detail the role of spinocerebellum in subconscious control of voluntary motor activity.

**II. Short notes:**

**(10 x 5 = 50)**

1. Sham rage.
2. Taste pathway.
3. Brain pathways for communication.
4. Pathway for light reflex.
5. Functions of middle ear.
6. Functions of prefrontal cortex.
7. Desynchronized sleep.
8. Referred pain.
9. Split brain.
10. Circumventricular organs.

**III. Reasoning Out:**

**(4 x 5 = 20)**

1. Endogenous opiate system is normally dormant.
2. Collateral fibers from specific sensory tracts funnel into reticular Activating system of brain stem.
3. Botulinum toxin is approved for the treatment of spasticity.
4. The highest frequency of sounds is detected nearest the oval window.

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