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Rajiv Gandhi University of Health Sciences, Karnataka
First Phase MBBS Degree Examination – June 2013

Time: Three Hours

Max. Marks: 100 Marks

**PHYSIOLOGY-PAPER II
(REVISED SCHEME)**

QP Code: 1054

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS

2 x 9 = 18 Marks

1. Describe the physiological actions and regulation of secretion of thyroxine.
2. Discuss how cerebellum controls motor activity. Add a note on tests of cerebellar function.

SHORT ESSAYS

10 x 5 = 50 Marks

3. Draw and label a nerve action potential. Explain propagation of action potential along an unmyelinated axon.
4. Name the different visual field defects caused by lesions to visual pathway. Give the basis of each defect. What is 'macular sparing'?
5. Name the language areas of cerebral cortex. Mention their location. Give the features of lesion to these areas.
6. Describe the features of Cushing's syndrome
7. Define 'referred pain'. Give any TWO examples of referred pain. Explain its physiological basis.
8. Explain the steps of synaptic transmission. Name any ONE inhibitory neurotransmitter substance.
9. Explain the functions of organ of Corti
10. Explain how sexual differentiation occurs in fetal life. Add a note on pseudo hermaphroditism.
11. Explain the ovarian changes during a normal menstrual cycle
12. Explain the sliding filament mechanism of muscle contraction.

SHORT ANSWERS

16 x 2 = 32 Marks

13. Using a tabular column, compare diabetes mellitus and diabetes insipidus with respect to any TWO features.
14. Mention FOUR features of lesion to corticospinal fibers at right internal capsule level.
15. Mention the site of production, drainage and method of collection of cerebrospinal fluid (CSF).
16. Name the endogenous opioid peptides. Mention their role.
17. Name the receptors for inverse stretch reflex. Mention the significance of this reflex.
18. Name the ear ossicles. Mention their role in hearing.
19. Give the physiological basis of dark adaptation.
20. Mention the location of olfactory receptors. What is olfactory adaptation?
21. Give the source and any THREE actions of testosterone in adult life.
22. How is corpus luteum formed? Mention its function.
23. Name any FOUR contraceptive methods employed in females.
24. Mention the components and functions of sarco-tubular system in skeletal muscle.
25. Name the two major types of smooth muscles. Give any TWO differences between them.
26. What is 'chromatolysis'? When does it occur?
27. Name the hypothalamic centers that regulate body temperature. Mention the role of hypothalamus in the causing fever.
28. List any FOUR functions of skin.
