

**Rajiv Gandhi University of Health Sciences**

M.B.B.S. PHASE - I Degree Examination - June/July 2009

Time: 3 Hrs.

[Max. Marks: 100]

**PHYSIOLOGY - PAPER II (Revised Scheme)****QP Code: 1054**

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

**LONG ESSAY****2 X 9 = 18 Marks**

1. Describe the changes in the ovary during menstrual cycle. Explain the mechanism of fertilization
2. Describe the origin, course and termination of cortico-spinal tract. What are the effects of lesion at internal capsule?

**SHORT ESSAY****10 X 5 = 50 Marks**

3. Describe the effects of hypersecretion of growth hormone
4. Describe the functions of glucagon
5. Describe the endogenous pain inhibiting mechanism
6. Describe the various waves in electro encephalogram and explain what is alpha block
7. Discuss the role of Wernicke's area in production of speech
8. Explain how impulse is propagated in the myelinated and unmyelinated neurons
9. Explain the mechanism of excitation - contraction coupling in visceral smooth muscle
10. Describe the taste pathways and mechanism of taste perception
11. What is dark adaptation? Explain the factors contributing to dark adaptation
12. Describe the structure of organ of corti and explain the mechanism of stimulation of hair cells

**SHORT ANSWERS****16 X 2 = 32 Marks**

13. Explain synaptic fatigue
14. Describe the functions and the features of primary motor area
15. Explain the mechanism of Ejaculation of semen
16. Name the placental hormones
17. What are the signs of tetany?
18. What are the manifestations of Addison' disease?
19. What are the functions of calcitonin?
20. Explain how anti-diuretic hormone acts on collecting duct
21. Explain 'flight or fight' reaction
22. Explain how behavioral thermo-regulation operates to maintain body temperature
23. Explain what is heat stroke
24. Define 'Rheobase', 'utilization time' and chronaxie
25. Explain what is end-plate potential
26. Explain electromyography and its clinical importance
27. What is Presbyopia? How can it be corrected?
28. Describe the functions of middle ear ossicles