



**MBBS FIRST PROFESSIONAL (PART-II)**  
**MODEL PAPER FOR ANNUAL 2009**

**Physiology**  
**(Short Essay Questions)**

Max. Marks 45

Time Allowed 2 hours and 15 minutes

1. A man drinks about 01 liter of water in 10 minutes. What changes occur in his water and electrolyte balance? 5
2. Give a summary of functions of the kidney. 5
3. Explain the functions of cerebocerebellum. Enumerate EIGHT features of the cerebellar disease. 5
4. A middle aged man was hit by a motor car resulting into fracture dislocation of the vertebrae. Later he developed certain effects indicating right sided hemisection of the spinal cord. Enumerate the features below and at the level of the hemisection. 5
5. What are the actions of CORTISOL on protein metabolism? How is cortisol secretion regulated? 5
6. Enumerate TWELVE effects of SYMPATHETIC STIMULATION in the body. Which NEUROTRANSMITTERS are released from preganglionic and postganglionic sympathetic nerve fibers? 5
7. A young female consulted her family physician. She complained of frequent muscle spasms and numbness of arms and legs. Her plasma calcium was 6.5 mg/dl.
  - a) From which condition was she suffering? 1
  - b) Was her plasma calcium normal? 1
  - c) What was the mechanism of her frequent muscle spasms and numbness? 3
8. What changes occur in eyes when these are focused on a near object? Explain the nervous mechanisms involved. 5
9. Compare the physiological actions of ESTROGENS and PROGESTERONE on the:
  - a) Uterus. 3
  - b) Breast. 2