

**First Professional MBBS Degree Examinations - September 2011**

**PHYSIOLOGY - PAPER II**

**Time : 3 hrs**

**Max marks : 50**

- **Answer all questions**
- **Draw diagrams wherever necessary**

**Long essay (10)**

1. A 50 yrs old male comes with the history of difficulty to walk. On examination there is rigidity and resting tremors. His gait is abnormal.
- What is your diagnosis.
  - How do you describe this rigidity and the resting tremor and explain their physiological basis.
  - Name the parts of the brain involved .
  - Describe the important functional connections.

(1+3+2+4=10)

**Short Essay:**

**(2x5=10)**

2. Describe the endometrial changes during a normal menstrual cycle and its hormonal regulation.
3. List any four functions of hypothalamus and explain any one

**Write briefly on:**

**(5x3=15)**

4. Milk ejection reflex
5. Disynaptic reflex.
6. Mechanism of action of steroid hormones.
7. Decerebrate rigidity
8. Functions of vestibular apparatus

**Draw and label:**

**(2x2½=5)**

9. Cortico spinal tract
10. Auditory pathway

**Explain the physiological basis of the following:**

**(5x2=10)**

11. Exophthalmos is a clinical feature of thyroid dysfunction
12. Sertoli cells are important in spermatogenesis
13. Calcium plays a major role in skeletal muscle relaxation
14. Near point of vision recedes rapidly with advancing age
15. Parathyroidectomy leads to signs of neuromuscular hyperexcitability