



First Professional MBBS Degree Examinations, August 2013

**PHYSIOLOGY – Paper II****Time: 3 Hours****Total Marks: 50**

- Answer all questions
- Draw Diagrams wherever necessary

**Long essay****(10)**

1. A 50 years old patient of hypertension suddenly developed weakness of right upper and lower extremities and difficulty in speaking following a brief episode of loss of consciousness. On examination motor tone of his right extremities was found to be increased. Answer the following questions based on your knowledge in physiology :
  - What would an examination of power and deep tendon reflexes of the patient reveal
  - What would examination of the plantar reflex of the patient most likely reveal
  - Explain the physiological basis of the findings of deep tendon reflexes in this patient
  - What is the most likely clinical diagnosis of his condition (2+2+5+1=10)

**Short essays****(2x5 =10)**

2. Metabolic effects of insulin
3. Denervation hypersensitivity

**Answer briefly****(5x3=15)**

4. Accommodation reflex
5. Pituitary dwarfism
6. Parkinsonism
7. Features of cerebellar lesions
8. Ovarian cycle

**Draw and label****(2x2½=5)**

9. Length-tension relationship in skeletal muscle
10. Wald's visual cycle - flow chart

**Explain the physiological basis of the following****(5x2=10)**

11. Patients with sensory ataxia lose balance on closing their eyes
12. Intra-uterine contraceptive devices prevent pregnancy
13. Diaphragmatic pain is felt at the tip of the shoulder
14. Patients of acromegaly may develop diabetes
15. Cardiac muscle cannot be tetanised

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