

**First Professional MBBS Degree Examinations July 2017****PHYSIOLOGY – Paper II****Time: 3 Hours****Total Marks: 50**

- Answer all questions
- Draw Diagrams wherever necessary

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

1. A 50 years old person complaints of increased appetite, increased thirst and increased frequency of urination. The blood glucose was found to be 180 mg/dl. Answer the following questions based on your knowledge in physiology :
  - What is your probable diagnosis.
  - Which hormone is affected.
  - What are the physiological effects of this hormone in the body
  - Enumerate the other hormones involved in the regulation of blood glucose(1+1+7+1=10)

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

2. Describe the regulation of body temperature during hot climate.
3. Describe the regulation of secretion of cortisol and its physiological role

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

4. Action of ADH
5. Types of EEG wave forms
6. Near response in normal eye
7. Pituitary dwarfism
8. Role of hypothalamus in feeding behavior

**Draw and label****(2x2½=5)**

9. Muscle spindle
10. Neuromuscular junction in skeletal muscle

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

11. Re-polarization phase of action potential
12. Cogwheel rigidity
13. Starling's law of muscle contraction
14. Immunological test of pregnancy.
15. Milk ejection reflex.

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