

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

- Answer all questions
- Draw Diagrams wherever necessary

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

1. An elderly man was admitted to the hospital with complaints of intense central chest pain with radiation to left arm. Answer the following questions based on your knowledge in physiology:
  - What is the cause of the pain in the left arm and explain its mechanism.
  - Describe the pain pathway in detail.
  - Mention gate control theory of pain sensation**(3+5+2=10)**

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

2. Effects of hypo secretion of growth hormone
3. Events during neuromuscular transmission of impulse in skeletal muscle

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

4. Reciprocal innervation.
5. Paradoxical sleep.
6. Milk ejection reflex.
7. Dark adaptation
8. Cerebellum in voluntary activity

**Draw and label****(2x2½=5)**

9. Taste pathway
10. Feedback regulation of thyroid hormone secretion

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

11. Renshaw cell inhibition
12. Safe period
13. Sterility in undescended testis
14. Neuromuscular hyper excitability in tetany
15. Masking in audition

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