



[LA 502]

FEBRUARY 2012

Sub. Code : 4053

**FIRST M.B.B.S. DEGREE EXAMINATION**  
**Revised (Non-Semester) Regulations**  
**PAPER III – PHYSIOLOGY INCLUDING BIO-PHYSICS – I**  
***Q. P. Code : 524053***

**Time : Three hours**

**Maximum: 50 Marks**

Answer **ALL** questions in the same order.

**I. Elaborate on :**

1. Explain the sliding filament hypothesis and outline the main events in the cross-bridge cycle. (1 x 10 = 10)
2. What are the components of gastric secretion? Explain the regulation of gastric secretion. (1 x 5 = 5)

**II. Write notes on:**

(10 x 2 = 20)

1. Anticoagulants.
2. G protein.
3. Calcitriol.
4. Thyroid function tests.
5. Describe the Reflex Arcs involved in micturition.
6. Explain the renal contribution to pH control.
7. Tubulo glomerular feedback mechanism.
8. Functions of plasma proteins.
9. Haemophilia.
10. Counter current blood flow in the villi.

**III. Short Answers on :**

(10 x 2 = 20)

1. Functions of Na-K pump.
2. Saltatory conduction.
3. Conn's syndrome.
4. Laron dwarf.
5. Aquaporins.
6. Anion Gap.
7. Macula densa.
8. Opsonization.
9. Immunological memory.
10. Cholelithiasis.
11. Enterogastric reflex.
12. Peristaltic rush.
13. Progeria.
14. Pills.

15. Permissive action.

