

[LB 502]

AUGUST 2012

Sub. Code: 4053

FIRST YEAR M.B.B.S DEGREE EXAM

Paper III – PHYSIOLOGY INCLUDING BIOPHYSICS – I

Q. P. Code: 524053

Time: 180 Minutes

Maximum: 100 marks

Answer ALL questions in the same order.

I. Elaborate on:

Pages Time Marks
(Max.)(Max.)(Max.)

- | | | | |
|--|----|----|----|
| 1. What are the normal blood sugar levels? Which hormones regulate the blood sugar level and how? Add a note on diabetes mellitus. | 16 | 25 | 15 |
| 2. Discuss stages of erythropoiesis and the factors affecting it. Add a note on sickle cell anemia. | 16 | 25 | 15 |

II. Write notes on:

- | | | | |
|--|---|---|---|
| 1. Functions of platelets. | 3 | 8 | 5 |
| 2. Composition and functions of gastric Juice. | 3 | 8 | 5 |
| 3. Molecular basis of skeletal muscle contraction. | 3 | 8 | 5 |
| 4. Sertoli cells. | 3 | 8 | 5 |
| 5. Rh blood group. | 3 | 8 | 5 |
| 6. Movements of small intestine. | 3 | 8 | 5 |
| 7. Functions of placenta. | 3 | 8 | 5 |
| 8. Functions of mitochondria. | 3 | 8 | 5 |
| 9. Puberty. | 3 | 8 | 5 |
| 10. Functions of glucocorticoids. | 3 | 8 | 5 |

III. Short answers on:

- | | | | |
|-----------------------------|---|---|---|
| 1. Inulin clearance. | 1 | 5 | 2 |
| 2. Oxytocin. | 1 | 5 | 2 |
| 3. Fever. | 1 | 5 | 2 |
| 4. Second messengers. | 1 | 5 | 2 |
| 5. Functions of bile salts. | 1 | 5 | 2 |
| 6. ESR. | 1 | 5 | 2 |
| 7. Hypocalcemic tetany. | 1 | 5 | 2 |
| 8. Placental hormones. | 1 | 5 | 2 |
| 9. Myasthenia gravis. | 1 | 5 | 2 |
| 10. Immunoglobulins. | 1 | 5 | 2 |
