

## 2010 Scheme

Q.P. Code: 104001

Reg. No.: .....

### First Professional MBBS Degree Supplementary Examinations July 2025

#### Physiology – Paper II

Time: 3 Hours

Total Marks: 50

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

#### Long essay (10)

1. A 65-year-old male, known to have long-standing diabetes and hypertension, presents to the hospital with the sudden onset of paralysis affecting the right side of his body. There was no history of trauma. On examination, he is alert but unable to move his right arm and leg voluntarily.
  - a) Describe the origin, course, and termination of the pyramidal tract with a neat, labelled diagram (4)
  - b) Physiological basis for hypertonia and Babinski sign in this patient (3+3)

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

2. Describe the functions of glucocorticoids
3. Describe the excitation - contraction coupling in skeletal muscles

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

4. Insulin – like growth factors
5. Describe positive feed back with two examples
6. Functions of the middle ear
7. Fight-flight reaction
8. Accommodation reflex

#### Draw and label (2x2½=5)

9. Dorsal column tract
10. Hormonal and ovarian changes in the Menstrual cycle

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

11. Anticholinesterase drugs in treating myasthenia gravis
12. Dark adaptation
13. Referred pain
14. Cretinism
15. Intrauterine contraceptive devices

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