

# 2010 Scheme

Q.P. Code: 104001

Reg. No.: .....

## First Professional MBBS Degree Supplementary Examinations July 2023

### 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 52-year-old housewife complains of progressive weight gain of 10 kg in 1 year, fatigue, loss of memory, slow speech, deepening of her voice, dry skin, constipation, and cold intolerance. On examination her pulse was 58 beats/min, she was moderately obese with a puffy face, non-pitting edema on the lower limbs, the Thyroid gland appeared enlarged, and deep tendon reflexes were delayed.

- What is the patient suffering from
- What blood investigations should be done to confirm the diagnosis
- Describe the biosynthesis and functions of the hormone causing this disorder

(1+2+7)

#### Short essays

(2x5=10)

- Describe the different refractive errors in vision and methods of correcting them.
- Explain the functions of the hypothalamus.

#### Answer briefly

(5x3=15)

- What are positive and negative feedback mechanisms. Give examples of each.
- Write a note on cerebrospinal fluid.
- Excitation contraction coupling.
- Functions of the placenta.
- Enumerate the functions of androgens during puberty.

#### Draw and label

(2x2½=5)

- Pain pathway.
- Muscle spindle.

#### Explain the physiological basis of the following

(5x2=10)

- Menopause.
- Polyuria in Diabetes mellitus.
- Night blindness.
- Hypertonia in UMN lesion.
- Muscle weakness in Myasthenia gravis.

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