

2010 Scheme

Q.P. Code: 104001

Reg. No.:

**First Professional MBBS Degree Supplementary Examinations
June 2026
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 43-year-old female patient, Ms. Y, presents with central obesity, hirsutism, proximal muscle weakness, and depressive symptoms. On physical examination, she has thin skin, multiple striae on the abdomen, and a "buffalo hump". Her fasting blood sugar is 170 mg/dL and blood pressure is 180/94 mm Hg. Laboratory tests show elevated plasma cortisol levels with loss of normal diurnal variation.

- a) What is the most probable diagnosis
- b) Explain the physiological basis for the clinical features observed in this patient
- c) Write a short note on the normal diurnal variation of cortisol secretion
- d) Name the hormones involved in the hypothalamic-pituitary-adrenal (HPA) axis

regulating cortisol secretion (1+5+2+2)

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

2. Properties of skeletal muscle
3. Brown-Sequard Syndrome

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

4. Tests for ovulation
5. Any Three errors of refraction and their corrections
6. Myasthenia Gravis
7. Differences between REM and NREM Sleep
8. Hormones for Lactation

Draw and label**(2x2½=5)**

9. Pain pathway
10. Accommodation reflex pathway

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

11. Stretch reflex
12. Impedance Matching
13. Tetany
14. Vasectomy
15. Babinski Sign
