

PHYSIOLOGY

PAPER-III

Time: 3 Hours
Max. Marks: 100

PHY/D/19/36/III

Important Instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts, wherever appropriate.

Write short notes on:

- Enumerate the functions of the thyroid hormone. 6+4
 - State the physiological basis of clinical features of the hyperthyroidism.
- Enumerate the various mechanism of heat gain and heat loss in a human body. 5+5
 - Discuss the role of hypothalamus in regulation of body temperature.
- Chart the entire process of generation of mature sperms from primordial germ cell. 6+4
 - State the role of various hormones in spermatogenesis.
- Describe the ovarian cycle and the tests for detection of ovulation. 7+3
- Describe the maternal-fetal-placental unit and assessment of its function. 7+3
- Describe the hormonal regulation of blood glucose level after a meal and in-between meals. 10
- Explain the mechanism of phototransduction. 3+7
 - Explain the physiological basis of light and dark adaptation.
- Define muscle tone. 2+8
 - Discuss spinal and supraspinal regulation of muscle tone with experimental evidence.
- Describe various righting reflexes for maintenance of posture and balance. 10
- Define and classify memory. 2+6+2
 - Describe the mechanism of consolidation of memory.
 - Add a note on retrograde amnesia.
