

PHYSIOLOGY

PAPER – IV

PHY/D/16/36/IV

Time : 3 hours

Max. Marks : 100

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:

1. a) Define Homeothermic and Poikilothermic animals. (1+1)+4+4
b) Heat stroke and its management.
c) Physiological variations in body temperature.
2. a) Gastric mucosal barrier. 3+4+3
b) Factors affecting the barrier.
c) Pathophysiology of peptic ulcer.
3. a) Define stress. 2+8
b) Integrated response of various endocrine glands in stress adaptation.
4. a) Enumerate the stages of spermatogenesis. 4+4+2
b) Factors affecting spermatogenesis.
c) Cryptorchidism.
5. a) Calcium balance in the body. 3+7
b) Integrated role of hormones for its maintenance.
6. a) Give an account of migrating motor complexes. 3+4+3
b) Functions of the lower esophageal sphincter.
c) Achalasia.
7. a) Classify oral contraceptives. 3+4+3
b) Mechanism of action of oral contraceptives.
c) Recent advancements in oral contraceptives.
8. a) Pharmacologic and pathologic effect of glucocorticoids. 5+5
b) Regulation of glucocorticoid secretion.
9. a) Autophagy 5+5
b) Thyroid hormone synthesis
10. a) Effects of intracellular deficiencies of glucose. 6+4
b) Differentiate between Type I & Type II diabetes mellitus.
