



PHYSIOLOGY
PAPER – IV

PHY/D/14/36/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.

1. Define gastric mucosal barrier. What factors are involved in it? Write briefly about pathophysiology of peptic ulcer. 2+4+4
2. What is migrating motor complex (MMC)? When is it present? Which hormone is responsible for it? What happens to the gastric and pancreatic secretion during each MMC? 4+2+2+2
3. Name the hormones of gastrointestinal tract. Describe in brief the chemical nature, synthesis, secretion and actions of glucagon. 2+(1+2+2+3)
4. What is calcium homeostasis? Describe the integrated role of various calcitropic hormones in its maintenance. 2+8
5. What is melatonin? Describe in brief the synthesis, factors affecting secretion and actions of melatonin. 2+(2+3+3)
6. Define puberty. At what age puberty starts in males and females? Discuss the causes of precocious puberty. 2+2+6
7. From where chorionic gonadotropin is secreted? Discuss its functions. What is its clinical importance? 2+5+3
8. Classify oral contraceptives. Give their mechanism of action. When should these pills be started? What are the recent advances in this field? Why synthetic hormones are given instead of natural hormones? 2+2+2+2+2
9. Define dietary fibres. Describe in brief the effect of dietary fibres on GIT, on glucose metabolism & on lipoprotein metabolism. Also mention its applied importance. 1+6+3
10. Compare and contrast between thyroid dwarf and pituitary dwarf. 5+5

